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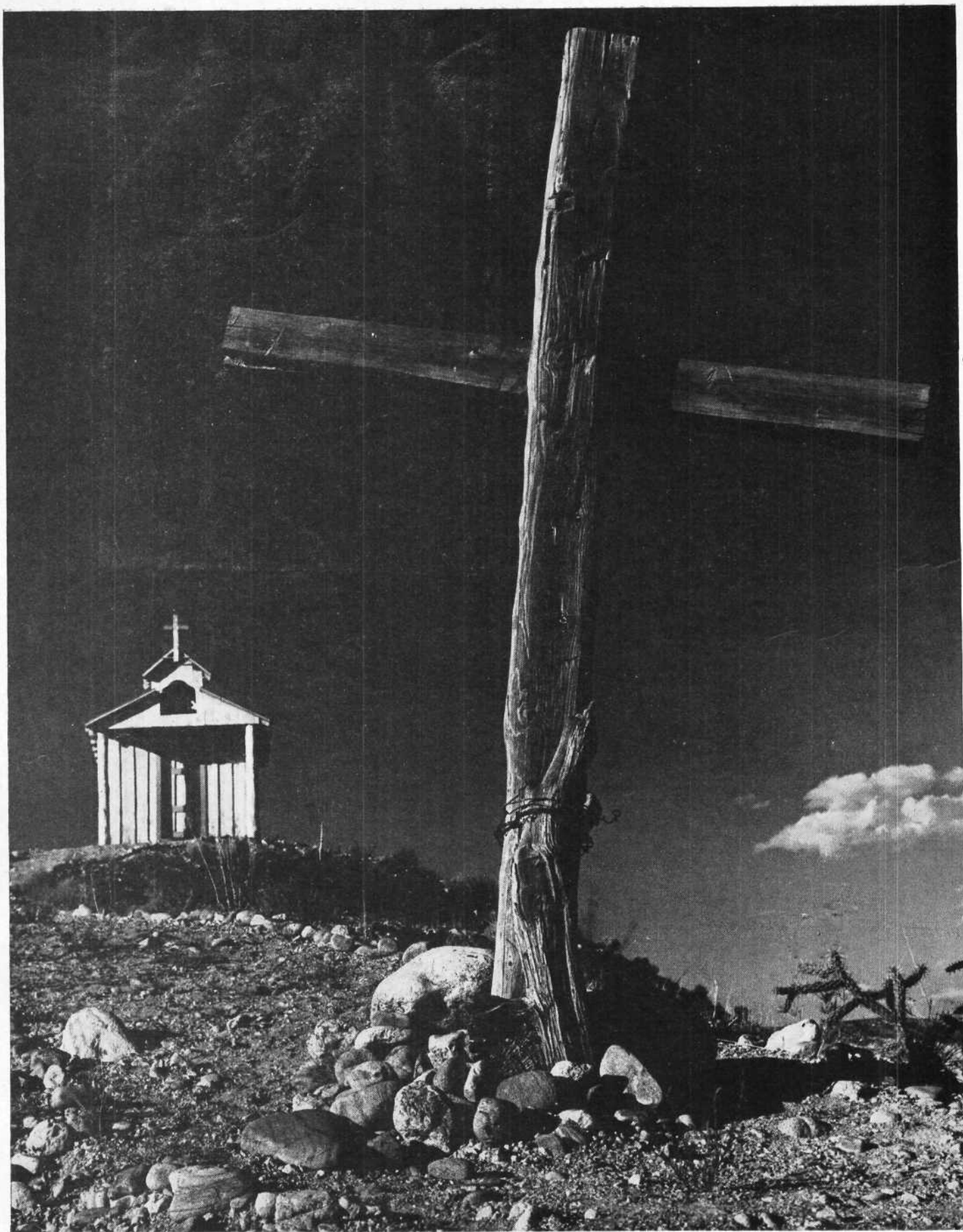
Desert

M A G A Z I N E



JUNE, 1943

25 CENTS



Family Church

By FRED H. RAGSDALE
Los Angeles, California

Winner of first prize in Desert Magazine's April photographic contest is this photo of a family church on the road to Chimayo, New Mexico. Taken with a 4x5 view camera, 6 inch Dagor lens, Panatomic X film with a "G" filter, F:45. Second prize winner on page 39.

DESERT

Close-Ups

• Archaeological exploration and field trips led Charles Kelly into the writing field. His trips over the Donner trail aroused his interest in the ill-fated Donner party—and out of that curiosity came his book, "Salt Lake Trails." Since then he has written "Old Greenwood," story of an early-day trapper; "Miles Goodyear," first citizen of Utah; "Outlaw Trail," story of Butch Cassidy and his Wild Bunch of Robber's Roost, and several others. This month's article for DESERT readers gives a close-up of a number of the most interesting examples of historic inscriptions Kelly has found in the West.

• Some readers are disappointed, others are indignant—as issue after issue of DESERT comes off the press without a Hilton travelog for the rockhounds. John actually has had time to finish one manuscript—but not for the rockhounds. It is a sketch of a desert artist and will appear in early summer. But work on two manuscripts on desert gems is in progress, so Hilton fans before very long may be reading again about where to go and what to look for—when they can go.

• Ethel Capps, "lady prospector," sold her bees after writing the story appearing this month. She now has returned to her home town of Spokane, Washington, for the duration but plans to return to the desert and her Arizona mining claims as soon as the war is over and gold mines again are permitted to operate. She writes, "I sold my bees to a be-whiskered bee-keeper who had already gathered 32 swarms of bees from such sources as rock crevices, old mining shafts and what-have you. My experience in the business gave me a lot of fun, considerable honey, and ouch! too many stings."

• Although John Lindsey Blackford, of Libby, Montana, "discovered" the desert little more than three years ago he now has an impressive collection of desert photographs. His shots for this month's pictorial feature, "Desert Magic," all hold vivid memories of treasured trips. He has prepared another pictorial for DESERT readers, confining his subject to trees characteristic of the Southwest.

CREED OF THE DESERT

By JUNE LEMERT PAXTON
Yucca Valley, California

In the distance they stand like clouds of smoke
Rising from altars, a prayer to invoke.
But do not, we pray, their branches stroke,
For thorns are a part of the Smoke tree's cloak.



Volume 6

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Number 8

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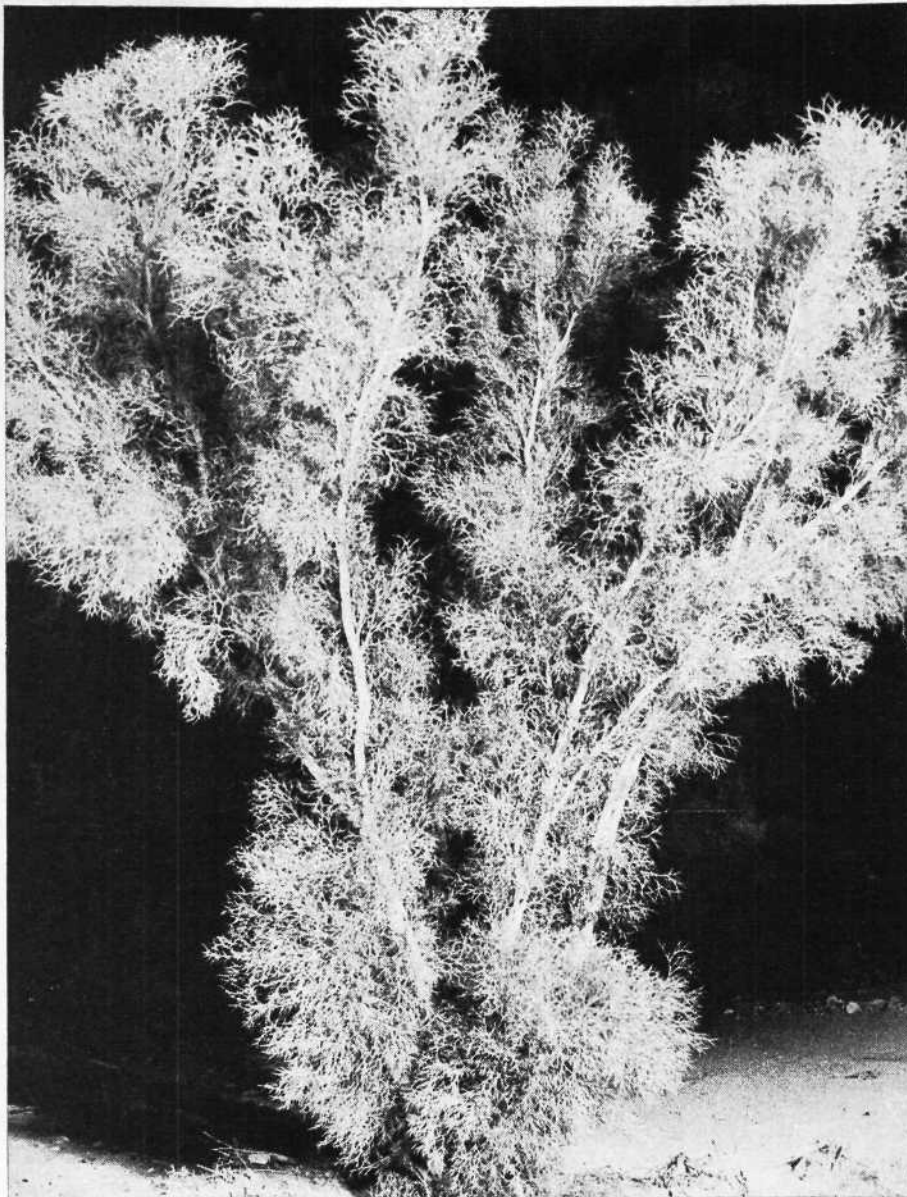
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Smoke Bush

By XAN M. HAMMOND

Oh, June, hot June!
tree of Grace!
weave of lace!
stands receptive,
gay, deceptive;
beauty dripping,
nectar sipping;
Here the king's abundant color
draped in regal disregard
ornaments the desert wasteland
shades the shrubs of spikenard.
As we approach we hear a humming
softly, lest we break the thrumming
Every bloom is yielding ransom
to a thief full bold and handsome;
seeming night drifts gently toward us
in a slow consuming flight;
tiny spirals leave us gaping;
is it smoke or is it waking?
Desert, hold your secret tight!

FAREWELL NOW DESERT

By CARROLL DE WILTON SCOTT
San Diego, California

Now sinks the red-ball sun behind blue walls
Save where it strikes far minarets of snow,
And rosy color mounts the sky and bathes
The suffocating landscape in its glow.

I ride across the gravel plain to climb
The rocky stairways of the barrier,
Once lilac, purple, blue, now ashen-brown
Confronting eastern walls of lavender.

Somewhere between, beneath the roseate haze
Are houses, fields and eucalyptus trees
Engulfed amid the desolation vast
Like a dream-ship that sinks in nameless seas.

The mountain summit gained almost
reluctantly
I find the road to crowded haunts of men;
One lingering gaze at your emblazoned sky—
Farewell, now, desert, I'll be back again.

DESERT SPRING

By DAISY STEPHENSON
Denver, Colorado

O, a garden is beautiful anywhere
When springtime walks, and the world is fair;
But crocus and hyacinth cannot compare
With the brave wild bloom of the desert.

Your civilized tulip and daffodil bright
Are ever a hopeful and radiant sight;
But the desert works miracles overnight
In marigold, lupine and mallow.

Where yesterday's landscape was drab to
behold
Today is a glory of purple and gold.
Such infinite beauty can never be told
When springtime has come to the desert.

COACHELLA VALLEY

By MAUDE L. STAUTZ
Le Sueur, Minnesota

The desert flaunts her dainty skirts before me
All lavender and gold and edged with lacy
green.

Her spreading palms like beckoning hands
allure me.
She woos me like some dusky pagan queen.

And all around her mighty mountains rear
Their shaggy heads—staunch sentinels to
guard
And hold her sweetness close, and every year
We find her ageless beauty still unmarred.

SONG OF THE GOAT HERDER

By MARY SALES MILLS
Gallatin Gateway, Montana

Out on the desert neath the blue of the sky
Wander my goats and I.
The dead grass sings a requiem
As the wind goes sighing by;
God's silence there is broken
By the lonely curlew's cry.

Far from the rim of the desert
The roaring cities lie,
Joy and strife within them
Pain and the tear dimmed eye;
Cares that kill the out-worn heart
And canker joys that die.

So on the desert neath the blue of the sky
Wander my goats and I.
Sunshine and space around us
Time and the world pass by,
For we have a peace that is not of men
My nibbling goats and I.

THE CACTUS WREN

By EVA M. WILSON
El Centro, California

Behold the wily cactus wren,
Whose house (the saints deliver us!)
She swings aloft mid sharpest thorns
And foils her foes carnivorous.

THE SOLDIER RETURNS

By E. A. BRUBACHER
Balboa Beach, California

The desert winds blow over me—
The cool winds of the desert night.
The stars are near, so very near—
So very cold and very bright.

The desert night folds over me.
I am alone—there's no one near.
Far away toward the westlands
The guns of battle I can hear.

The desert night is whispering things
As it takes me unto its breast.
The desert song is lulling me
Into its long long sleep of rest.

I'll be one with the desert soon—
Part of its stars and wind and night,
Part of the mystery and peace,
Part of its sands that gleam so white.

I'll be part of the desert's song,
Part of the peace and mystery,
Part of the things that men have felt
But that no human eye can see.

The desert draws me to its breast,
I am content and all is well,
And the desert and God will know
Who that I am—and where I fell.



Pelican colony disturbed by motor boat on Lake Pyramid. Photo by I. N. Gabrielson, Fish and Wildlife service.

Pelicans of Pyramid

A lake teeming with fish, an island covered with voracious white pelicans, and Pahute Indians who depend almost as much on the lake's fish as the pelicans. Here is the triangle Margaret Stone found when she accepted the invitation to visit Mary Pepo and her family while they caught and dried their winter's supply of fish along the shores of Lake Pyramid in western Nevada. Mary Pepo stated the triangular problem: the government protects the pelicans which are increasing rapidly, thereby eating more and more of the fish and leaving less and less for her people. On top of that, an irrigation dam diverts much of the water which feeds the lake, causing the waters to recede. Mary Pepo and her people are worried, but the author believes there is plenty of fish for pelican and Pahute. She sees the real menace to both the Indians and their fish supply in the diversion of the water from the lake.

By MARGARET STONE

"**T**HIS is the lake where the cui-ui live." Mary Pepo, aged Pahute woman looked across the sparkling blue waters of Lake Pyramid in western Nevada's desert, and sighed. "I want to tell you *this*; years ago when I was a little girl we had fish of all kinds for everybody. Even the great white bird you came here to see could not make the supply less. The Indians dried them and saved them for winter food. Now, since the building of Truckee dam, and because the government will not let us break

the eggs of the pelican and kill the greedy birds we shall likely starve."

A lugubrious expression settled itself on her wrinkled brown face. I looked at her and grinned, and Mary reluctantly twinkled. She knew and I knew the waters of Pyramid teemed with fish, plenty for bird and man. In fact it was her invitation to join her people at the lakeside while they caught and smoked their winter's supply of cui-ui, a coarse species of sucker, which brought me to camp there in that western desert beside one of Nature's

jokes, a lake 30 miles long, seven or eight wide, set down in a land where a lake is not expected to be found. Lake Pyramid, there among the Rainbow hills not far from Reno, is the last and largest fragment of the prehistoric water called Lake Lahontan that once covered a great portion of the western desert.

Mary Pepo has no love for the great white pelican, which since time immemorial, has made Anaho island, in Lake Pyramid, its summer home and nesting place. There and on other isles in the lake it has reared its young, leading them southward in the late fall and returning each spring to torment the Shoshone and Pahute Indians living in that vicinity.

Year after year the untiring feud goes on. The fish and wild life bureau under whose supervision Anaho island and its rookery of pelicans, largest in the world, lies, admits the pelicans there consume about 4,000 tons of fish each season. Each adult bird eats an average of four pounds a day, and there are now some 5,000 adult pairs of pelicans on Anaho island. When they seek food for their young in the warm shallows of the lake, and fill their huge bill pouches it does look like nothing much will be left for the Indians.

Watching these ungainly birds feeding I found an old ditty running through my head. Along with the memory of the rhyme came the taste of yellow soap, em-

ployed by my austere grandmother to wash out my mouth when I recklessly chanted the lines in her presence:

"What a wondrous bird is the pel-i-can!
His beak holds more than his bel-i-can.
He can hold in his beak enough for a week,

And I don't see how in the Hel-e-can!"

Anaho island, a 248-acre tufa formation in the lake, has been set aside as a bird refuge, thus ending for all time the forays of whites and Indians against the pelican rookery there. It was great sport to go to the island in row boats and later in motor crafts, and beat and flail and maim and kill the ungainly birds and wreck their nests. Great sport, but not a safe one now that Uncle Sam has spread his protection over the island.

There is something to be said on the side of the Indians who use dried fish for winter food. After all, the pelican is a huge bird and it takes a lot of fish to keep

him going. He is about five feet long, has a wing spread of eight to 10 feet, and owns a bill at least a foot long. When one swoops directly toward an intruder, there is an impression that a range cow has gone sailing over the moon or else a stray bomber is making a forced landing. Before going to the Nevada rookery I had done a little research on the pelican: "The white pelican is a large grotesque water bird which breeds on the inland salt lakes of the Great Basin in Western desert states. . . . Because of their fish eating habits pelicans have been persecuted by man!" And how.

Here was a real triangle right beside me: Beautiful sparkling Lake Pyramid, great rapacious white bird defying extinction, and hungry Indian. All the angles clearly set out. And, as usual, no real reason for any dispute. The lake has plenty of fish for both bird and man, unless man himself in his shortsighted

greediness, dooms the lake to oblivion. Since Truckee dam has been built more and more water is diverted to irrigate lands until only a small trickle reaches the lake. And the Truckee river, named by Fremont in honor of Mary Pepo's father who guided him to the lake in 1844, is the only source of supply for the body of water, other than the brief torrents sent in the spring time down the furrowed hills surrounding the lake. That dam is the real menace to the Pahutes and their fish.

When Truckee led Fremont to the desert bound body of water, the explorer took one look at the tufa formation breaking the surface of the blue mirror and called it "Pyramid." In those days the Pahutes fished its waters from rafts made of bundles of tules bound tightly together. Their hooks were bits of sharpened bone or cactus thorns from the desert. At spawning time the lazy fish

A corner of thirty-mile long Lake Pyramid, largest remnant of prehistoric Lake Lahontan. From its waters rise several tufa islands, one of which is a government refuge for the white pelican. Photo courtesy Reno chamber of commerce.



pushed against one another, forcing their way up through the shallows of Truckee to spawn, and then the pelicans and Indians really feasted. The women and children waded in the shallows and caught them with their hands. They were cured over slow fires and stored for food. Mary Pepo was still talking of those days.

"When I was little my people camped here for weeks. My, the fish we caught *then*. We snared them and speared them and caught them in nets made of milkweed silk. We didn't waste any of them either, I can tell you. We cut their heads off, split them down the backs and smoked them over alder and sage brush coals. Then we laid them in the sun on hot rocks and turned them over and over until they were hard and dry before we packed them away for winter food."

She rambled on and on while my mind wandered through the pages of history written there in her land. Here great caravans crossing the salt sinks on their way to golden California were bogged down and perished; here miners worked and prospered and fought among themselves and died; here the Pahutes ambushed and killed marauding whites, until the whites became too many for them taking their lands, their game, their water, forcing them into the listless poor tribe of today. The young ones are breaking away from the stigma of "Pahute" and forging ahead with their cattle and small farms, but the old ones are hopeless.

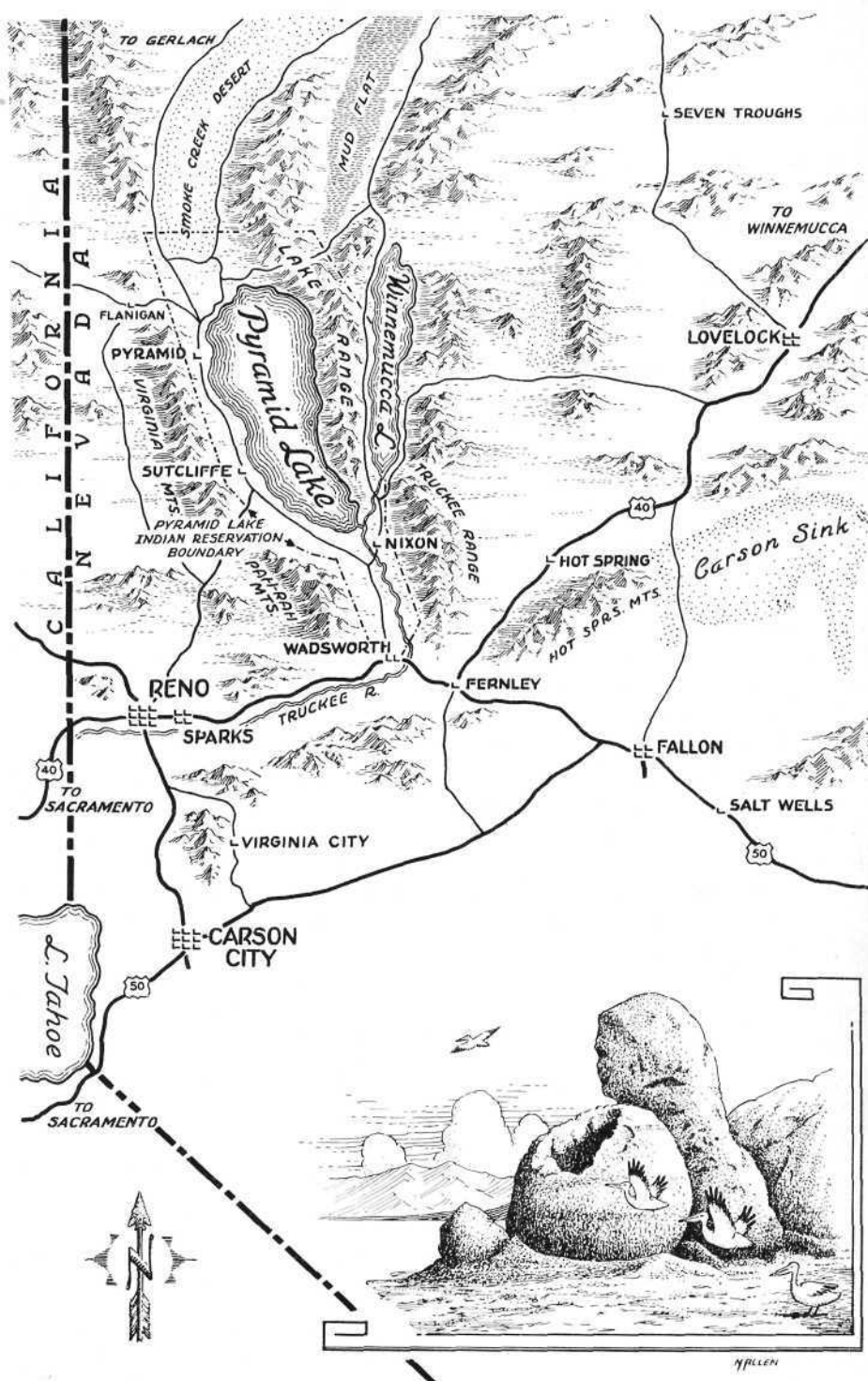
Days passed while I lingered there with the Pahute people. All day they fished and prepared their catch for curing. At night they feasted and sometimes danced to the dull beat of a drum and sad wail of the flute. At the break of day the men were off again in their fishing boats. No white men are allowed to own or operate boats on this ancient fishing water of the Indians, and I was delighted at the justice of that ruling. Indians can rent their services to white fishermen permitted to buy a license for fishing there good only one day.

The boats headed out toward the tufa formations where the water is deepest and coldest. There at a depth of 50 feet the white men caught the huge landlocked salmon, called trout, and sometimes they weighed 20 or 30 pounds. The cui-ui, a dumb sluggish fish, never learns to stay away from the warm shallows where it is such an easy prey to pelican and Pahute.

On my last day at Lake Pyramid I went out in the boat with the family of Mary Pepo. Far out into the lake the motorboat plowed its way leaving furrows of green white foam behind it. The old Indian woman trailed a thin brown hand in the water and looked with apprehension at the pyramid from which the lake took its name. In her soft Indian tongue she gave her son some instructions and he reluctantly veered away from the huge formation looming above us almost 500 feet, its top wreathed in vapor.

"It is not good to go close to that place," said Mary with an appealing hand on my arm. "That is the place of the Lake Spirit waiting for souls to come near. Boats are upset here and people drawn down to the dwelling place of the spirit. He never lets them go again." In Reno, later, I asked an old timer about that legend and he said there is a very strong undertow near the formation and swimmers have been drawn under and their bodies never recovered.

While Mary Pepo shuddered at her





White pelicans breed on Anaho island in Lake Pyramid, the West's largest rookery of pelicans. At times their number is so great the island seems covered with snowdrifts. Rattlesnakes are numerous on the refuge. Fish and Wildlife photo.

own story, her son told me another legend of his people concerning the formation. "That is a big basket turned over a Pahute woman unfaithful to her husband. The gods punished her. And then she and the basket turned to stone, but her breath still comes up. See the steam around the place?" He couldn't say just what became of the unfortunate woman's partner in crime, completely ignoring my inquiry.

There is yet another Pahute story concerning a basket. North of the pyramid from which the lake takes its name is a most interesting formation simply called "Squaw With a Basket." She is supposed to be patiently waiting for her man who was drawn into the fatal waters of the lake.

All the while we were visiting sections of the lake the Pahute fisherman was patiently fishing, and with monotonous regularity pulling big sluggish fish into the boat, and then playing out the copper line again with its gaily colored spinners. The fish varied in size from three or four pounds up to 10 or 12 and they didn't look very appetizing to me. But then I've never been a hungry Pahute on a winter locked Nevada desert.

We circled close to Anaho island, as close as the law allows, where the pelicans were so thick they resembled drifts of snow, or brought vividly to my mind, windrows of dirty grey ice packed along the shore of Lake Michigan. Some sat full fed in the sunshine, groggy and garrulous like village gossipers. Others, disturbed by our presence whirled and

circled around the island. Both parent pelicans never leave the nest with its two or three eggs at the same time. Too many sea gulls are waiting tirelessly to break the eggs and eat them. Mary Pepo said that when the Indians went to the island to break up the nests they had to watch sharply for rattlesnakes which infest the place. They must take a huge toll of eggs themselves, those egg loving reptiles.

Pelicans on the water had difficulty in rising when we came too near them in the boat. For 50 feet or more they struggled just above the water their feet kicking back like propellers. When they were free from the surface they tucked their legs under them like airplane landing gear, and leisurely flapped their way out of danger.

Back on shore, fires had been burning until only coals were left, and the fish quickly were beheaded, slices cut away from the backbone, and strung on yucca ropes. These were hung to dry over the coals. Big wash boilers filled with water were placed over briskly burning fires and into these the carcasses of the big fish were dropped and boiled until the flesh came easily away from the bones. This was mixed with corn meal and a sort of fish mush evolved.

This was a little too much fish for me and I wandered away to my own camp where I looked across the water. Pyramid is a lake of many moods. Under the mid-day sun it sparkles and murmurs and breaks into coquettish little ripples. When a storm arises the waters are dark and menacing, rolling sullenly into harsh

waves. But tonight, just as the sun was dropping there was a mirror-like calmness shot through with streaks of gold, from the last faint rays.

Then the sun suddenly was gone, and darkness closed over lake and desert as though a huge bowl had been inverted—a bowl soon patterned with great soft stars. Far down the shore a flute timidly sounded and was encouraged by the firm thump of the age-worn drum of the Pepo family. It was the hour when the air was laden with smells and sounds of Indian camp life—the heavy smell of oily pinyon fires, the scent of drying fish, the sound of sleepy children and the low plaintive voices of their patient mothers. Over it all the beat of the drum throbbed and the flute wailed an accompaniment. Soon the call of hungry coyotes would come from nearby hills.

Mary Pepo was beside me. So silently she had come I was not aware of her presence until she spoke, "Nothing tastes better than a fat fish baked on a hot rock. I'll cook one for your supper tonight."

"All right, Mary Pepo, but I'll get it ready to cook. I want to know it's clean inside and out before it is baked!" Mary just laughed. "You white women are funny," she said.

NEW SURVEY SHOWS PELICAN INCREASE

Pelicans have more than doubled in Nevada since 1940, according to state fish and game commission reports available April 28. Although considered a menace to Nevada's fish the fish and game commission has been unable to take any action because the birds are protected by federal laws.

Records of a count of young pelicans, all less than half grown, made on Anaho island, Lake Pyramid, in 1940 revealed 1,562 of the birds. Recent count showed the number of pelicans in the half-grown class had grown to more than 3,000.

The pelicans are found in small numbers at Lake Tahoe, in large numbers in Pyramid Lake section, and in increasing numbers in the vicinity of Fallon.

"If pelicans are permitted to feed unmolested on concentrations of game fish they easily can undo in one week what has taken sportsmen and conservationists years to build up," Vernon Mills, state game warden, declared recently.



America's most famous autographs in stone are found on Inscription Rock, New Mexico. Photo shows an interesting group of panels containing names and dates cut into rock surface.

Autographs in Stone

Ever since he first saw Names Hill, covered with old pioneer names, Charles Kelly has followed clues to other "stone autographs" throughout the Southwest. Some he has found on the Oregon Trail and on the Old Spanish Trail; others at points remote from today's highways. Many of them have uncovered heretofore undiscovered links in the history of the West. All of them hold human stories of hope and tragedy and triumph.

By CHARLES KELLY

SEVERAL years ago as I drove along an unfamiliar road about 40 miles north of Kemmerer, Wyoming, my wife consulted a road map, one of the first to indicate interesting historical spots in red lettering.

Nearing a high bluff along Green river she told me it was called "Names Hill." Curious to know why it was so called, we stopped at a small house to inquire of a man leaning on the gate. He told us the rocks were covered with old pioneer names and offered to show us over the hill.

That was my first meeting with Julius Luoma, trapper, fox farmer and self-appointed guardian of historic Names Hill. As we crossed the road he pointed out some large inscriptions cut in the rock, and when we arrived at the smooth face of the cliff I found it was literally covered with names and dates. These, I soon saw, were not idle scratchings of Sunday picnickers, but a record of the passing of hundreds of early Oregon and Cali-

fornia pioneers, who had left their names on this landmark along the trail for the information of friends who might follow later.

"Has anyone ever made a record of these inscriptions?" I asked.

"I don't think so," Luoma replied. "Very few people ever stop to look at them. But someone ought to make a record of them before they disappear. A good many have already been eroded away by wind and rain."

"Then let's do it now," I said, returning to the car for pencil and paper.

With Luoma's enthusiastic assistance I spent the rest of the day copying the hundreds of old names on Names Hill. And that was the beginning of my favorite hobby—recording old inscriptions.

The dates, I found, ran from 1840, near the end of the trapper period, to 1869 when the first transcontinental railroad practically ended travel by covered wagon. The ford of Green river at that point was on the old Greenwood cutoff of the Oregon trail and most of the names carved there were of Oregon pioneers, but there was also a generous sprinkling of 49ers bound for California. Judging by the dates there was a grand rush of emigrants in the 1850's which gradually diminished toward the end of the 1860's.

Previously I had done much research in tracing old emigrant trails, but this was the first time I had seen actual signatures of the men who made them. It was such a thrill that I determined to search out every place where such records might be found

more than a mile along the old trail. This rock was of more enduring nature and most of them are still legible. A complete listing was made some years ago by Paul Henderson, of Bridgeport, Nebraska. The earliest was accompanied by the date 1796, proving that American trappers had penetrated Wyoming long before the days of General Ashley's fur brigade. Other names were dated 1811, 1826, and so on, but none of those early trappers and explorers left any written record of their travels. Evidently there are chapters of early western history still unwritten.

Farther west, on Sweetwater river, stood Independence Rock, famous emigrant landmark, called by Father DeSmet "the register of the desert." The earliest trappers and explorers of which we have any record cut their names on this great rock and at one time it contained more than any rock on the desert. But although it was granite, it has eroded so badly that all those early inscriptions have disappeared, the earliest still legible being 1847. However, the signatures of hundreds of Oregon and California emigrants and 49ers are still visible, and these were carefully recorded and published several years ago by Robert G. Ellison, who was among the first to recognize their historical value.

The next important registering place was Names Hill, where emigrants, after crossing the ford, usually spent two or three days refreshing their animals on the river bottom grass. After listing the names at this place Mr. Luoma took me to Holden Hill, four miles west, where we found many more.

On a later occasion he guided me to Emigrant Springs, 12 miles west of Holden Hill. It was a good camping place, with plenty of grass and a good spring. On the bluffs above the spring were hundreds of names, but no dates earlier than 1849. On one well protected face of fine grained shale many signatures had been scratched with the point of a knife no larger than ordinary handwriting, yet perfectly preserved. In the sagebrush below the cliff stood a large solitary boulder, looking somewhat like a tombstone. Beneath it a pioneer humorist had buried an empty whiskey keg, then carved on its face this epitaph: "Peace to His Ashes. Here Lies in Spirit W. Keg, Age 30, from Ky."

In 1858 the Lander cutoff was laid out from the western foot of South Pass to what is now Cokeville, Wyoming, where it connected with the old Oregon trail. It crossed the rough Salt River mountains which were covered with a heavy growth of timber. Hundreds of names were cut on the smooth white bark of aspen trees, but a majority of these are now illegible. Other emigrants skinned the bark off pine trees and engraved their names in the wood, which has since been largely covered by new growth.

The California trail turned southwest from the foot of South Pass to Fort Bridger and Salt Lake City. On this route, along the bluffs of Muddy creek, north of Fort Bridger, are many early names. After passing the fort, this trail led toward Echo canyon, and a mile before entering it the emigrants passed Cache Cave, a trapper landmark. On the walls and roof of this cave are scores of names, the earliest still legible having been cut by Mormon pioneers of 1847. On a bluff nearby is another group left by members of Johnston's army of 1857 and Mormons who opposed their entry into Utah.

Beyond Salt Lake City, in the southwest corner of Idaho, is a picturesque spot which emigrants called "City of Rocks." Because of its grassy meadows and clear cold water it was a favorite camping place. The hard granite rocks which gave the place its name resisted carving, but hundreds of names were painted on the smooth surfaces. Only a few are still legible, among them the name of a brother of Kit Carson.

South of City of Rocks the California trail struck Goose Creek, in Nevada. Here, near Horseshoe ranch are some high bluffs on which are found several groups of inscriptions, dating mostly from 1849. Continuing on this trail toward Wells, Ne-

vada, J. Roderic Korn and I found a bluff of grey lava ash on Little Goose creek literally covered with names, all dated either 1849 or 1850. We called the place Raven Cliff and believe we were the first to record any of those inscriptions. Among them was one which read: "G. M. Ferrell, Full Bent for Sacramento. Age 22. Well." It would be interesting to know if this sailor boy ever reached his destination and realized his ambition to dig gold.

The most famous inscriptions in America are those carved by early Spanish explorers on Inscription Rock in New Mexico. They justly have received a great deal of attention. But it is not so well known that on the same rock are hundreds of names of emigrants and soldiers. One large party who left their names on the rock in 1857 were later attacked by Indians, who took all their stock, burned their wagons and killed a number of the

Curious inscription in Braffet canyon, near Parowan, Utah, on the Old Spanish Trail, dated 1831 below the word GOLD.



emigrants. Survivors, making their way back to Santa Fe on foot, were rescued by Lieutenant Beale, whose name also appears on the rock.

A peculiarity of these emigrant inscriptions is that the names of outstanding leaders of wagon trains are conspicuous by their absence. They were apparently too busy to waste time cutting their names on the rocks. Another noticeable feature is that although thousands of women crossed the plains in covered wagons, only a half dozen ever left their names along the way. The initials "J. W." appear most frequently in all these groups. The most common date is July 4, because all emigrant trains stopped to celebrate that day.

Many names occur again and again at various stopping places along the trail, but a majority are found once only. Some men made several trips across the plains and added new dates to their original inscriptions. Some names found on Register Cliff, first registering place, are also found on rough headstones farther west where the men died from disease or were killed by Indians.

Aside from finding these large groups of pioneer inscriptions, the most interesting angle of this hobby is the discovery of isolated inscriptions left by early trappers and explorers long before there was an overland trail. Some of these experiences have already been described in *Desert*.

The initials of Henry W. Bigler, found in Beaver Dam Wash, Nevada, have been of assistance in relocating the old Death Valley trail of 1849. The name "Denis Julien, 1831," found in Uintah Basin, Utah, helped solve the mystery of the "D. Julien" who left his name in six places along Green river. The longest inscription, except those on Inscription Rock, was one in French left by Antoine Robidoux in 1837, west of Mack, Colorado, an-

nouncing his intention to establish a trading post in the Uintah Basin.

On a voyage through Glen canyon of the Colorado river in 1938 with Julius F. Stone's party, we found the date "1642" cut in large figures on a cliff opposite Lake canyon. No name accompanied it. If this is genuine it is the oldest date found on the rocks in Utah. Nearby on the same cliff was an illegible inscription in French dated 1837. The latter may have been left by a party of French trappers who were continuing the explorations of Denis Julien begun in 1836.

In Braffet canyon, near Parowan, Utah, Frank Beckwith and I found a very curious inscription. On a large boulder was the word GOLD with letters reversed, and beneath were some initials and the date 1831. On another rock nearby was cut a cross, some initials and the same date. These were probably made by early travelers over the Old Spanish trail through Utah which was opened between Santa Fe and Los Angeles in 1830. The word GOLD had been the cause of considerable digging in the vicinity but nothing was ever found.

Because of my interest in this hobby I receive many reports of old names and dates on the rocks all over the Southwest. I try to trace each one, and while most such reports prove false, occasionally something worth while is found. Each new discovery adds something to our knowledge of early western history. It is a fascinating hobby which has led to the discovery of many interesting corners of the desert.

Whenever I find one of these old records, whether made by one of the early trappers or by a covered wagon emigrant, I know that the man who cut his autograph in the rock possessed the qualities of courage, self-reliance, independence and plain, old-fashioned guts!

District Power Has a Birthday . . .

- Seven years ago, on May 19, 1936, Imperial Valley newspapers headlined the story of the first consumers being connected to Imperial Irrigation District power lines.
- The miraculous growth and expansion of this publicly owned public utility since that recent date, is a saga of progress that is a glowing tribute to the people of Imperial Valley who overcame every obstacle in their fight to utilize the power possibilities of the great All-American canal.
- Starting with three small diesel generating units, and a distribution system covering only

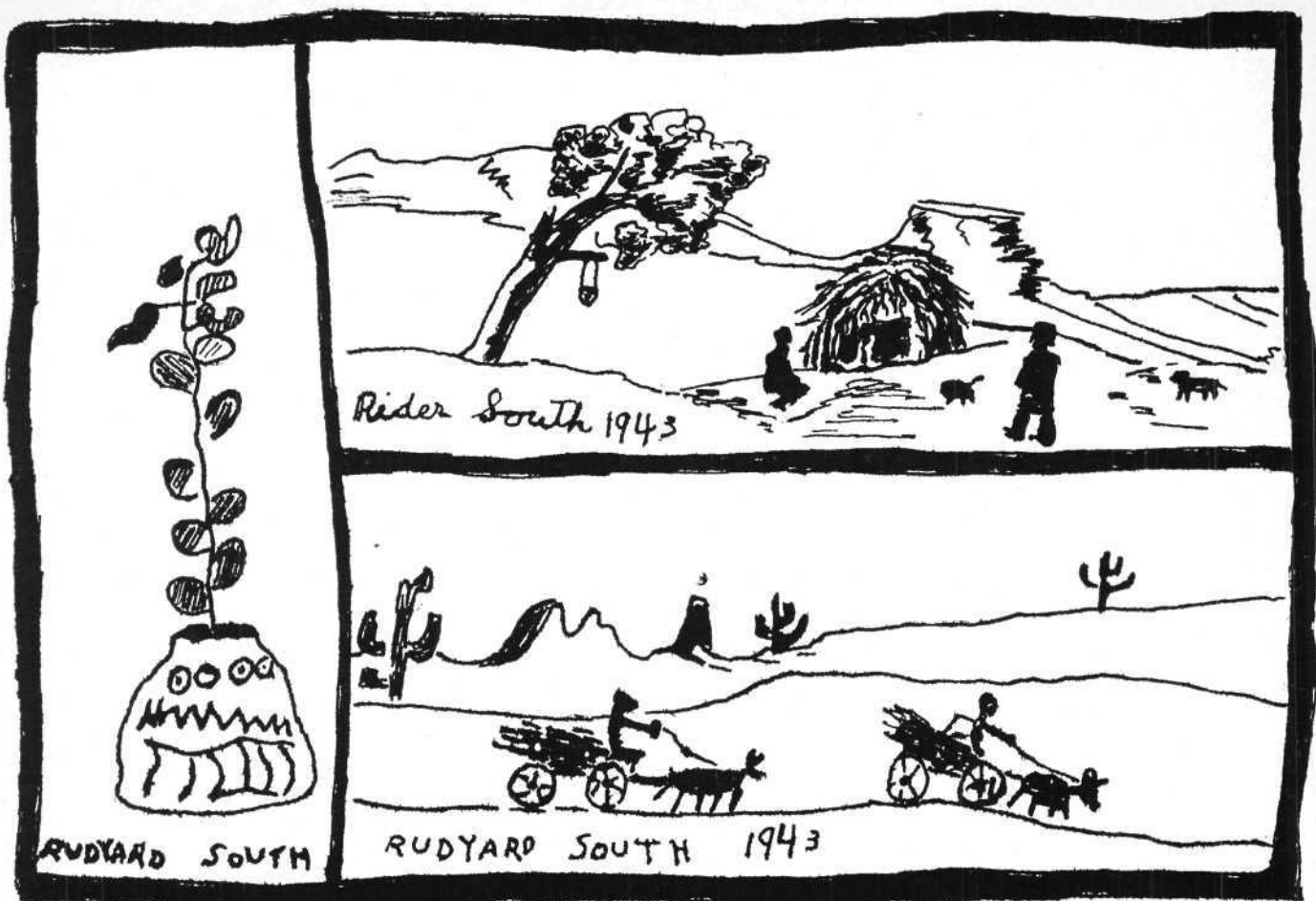
a portion of the incorporated city limits of the town of Brawley, the District power system has spread until today it reaches out to serve every city and town in Imperial Valley. In addition, over 2,000 farms and rural homes—previously without electricity—are served over a rural network comprising nearly a thousand miles of lines.

- The three small diesel generating units grew to the largest active plant of its kind in the West—two huge hydro-electric plants were built on the All-American canal. Gross power sales for 1943 will total nearly a million dollars—truly a tremendous record of accomplishment.

Imperial Irrigation District



Use Your Own Power—Make it Pay for the All American Canal



Three-sketch layout executed by Rider and Rudyard South who came to the rescue when a photograph for this month's "Refuge" was unobtainable. Victoria wanted to contribute but her big brothers consider her art too impressionistic for Desert Magazine.

Desert Refuge

By MARSHAL SOUTH

ON THE road again, the blue bowl of the desert sky for a roof and a fringing rim of far blue mountains everywhere upon the horizon. The old Ford puffs and chugs and the heavily loaded trailer creaks and sways as it trundles along behind. It is good to be on the trail again, even though a scrupulous care in the conservation of gas and rubber has shorn our voyaging down to absolute necessity. But the miles that unroll now beneath the wheels are really those that we stored up during the winter, when for the greater part of the time the car was laid up and we used our legs instead. It was a long rest—or it seemed so, to our impatience. Now it is good to be once more on the move.

The children are all excitement. To them all things new are an adventure. And their eyes are constantly searching the horizon. But there is a tinge of wistful remembering threading through their eager chatter. Those were happy days in the Little House. And under the cottonwoods among the bushy thickets of the old reservoir.

Rudyard still thinks of the frog that had his home in a grass-grown cow-track at the base of a gnarled rabbit bush. A friendly jewel-eyed little fellow, that frog. Half concealed by the grass blades in his little retreat he would sit and watch us with his deep, shining eyes until Rudyard would tickle him gently with

Marshal and Tanya South, with their three children, are on the trail again. Many months ago they left their Ghost Mountain home, "Yaquitepec," on the western rim of the Colorado desert in California to find a new home—a home where they could be assured of a sufficient water supply for their growing family, yet one remote enough to carry on their experiment in primitive natural living. Their wanderings have taken them to many oases and water-holes in the desert—in California, Arizona, Nevada and Utah. It was in a little valley in Utah that they found temporary refuge during the sudden snowy blasts of winter. . . . And now they are somewhere on the trail again. They do not know their destination. Scores of friends have written them, telling them of favorite retreats, but not yet have they found the ONE PLACE they are sure awaits them.

a grass stem. Then *flip!* he would be gone, a tiny mottled green body making great hops towards the reedy water. But next day he would be back again in the cow track.

After a few times we got the notion that he really expected us. And enjoyed it all as a great game. Now that we come no more he probably will sit and muse about all the strange meaning of his adventures. And he will tell the story to his children. And it will be handed down from generation to generation. And become frog mythology. And be-spectacled frog scientists, in the days to come will prove that it was all just a wild dream about

something that never really happened. Just as our own learned men can prove to you, in short order, that there is positively nothing at all in old legends and fairy tales and in the strange old stories handed down from generation to generation by all primitive peoples.

Shimmers of warm air ripple mysteriously across the great sweep of the land that falls away in broad glowing reaches from where I sit, until it fades into dim, pastel distance. The weird Joshua that reaches above me throws a pattern of fantastic shadow sharp as though cut from jet. Overhead a buzzard wheels in high effortless circles. And the hard, glowing mountains that march across the horizon are those of Nevada. Silence lies over all. And peace. The faint, almost inaudible stirring of the little threads of desert wind that steal through the creosotes might be the soft footfalls of the Great Spirit, walking through the wilderness as in the beginning of the world.

It is a hushed dreamy place, this noonday lunch spot. Tanya is feeding sun-bleached greasewood sticks to a little fire over which a skillet frizzles. And between times she is scribbling a poem with a stub of pencil upon the back of an old envelope. Rider, Rudyard and Victoria have carried a piece of old canvas to the shade of a wide spreading creosote bush and are stretched upon it in drowsy content, the two younger ones scuffing happy fingers in the warm desert earth as they pile twigs and bits of stone together in play houses and fences and corrals. Rider, a bit apart, is experimenting, thoughtfully, with the braiding and weaving possibilities of yucca leaves.

A happy desert trio, these young hopefuls. And beginning more and more to take hold upon life. When they heard me bewailing the fact that a suitable photograph would be unobtainable for this month's article they promptly went into a mysterious huddle. From which emerged, some time later, the three-sketch layout which this time does duty for a photo. Rider, with the mature wisdom of nine years contented himself with one sketch. But Rudyard, perhaps feeling that he must, in some way, even up his disadvantage of being only five, decided to put in two.

Victoria had a hand in the pie also. But the boys, knowing her "Impressionistic" style of drawing, foxily talked her into putting her masterpiece upon a separate sheet—which alas, failed to get by the art critic.

The wheels have rolled onward. The camp spot this evening is far different from our resting place of noon. The Joshua trees have gone. In their place the creosotes stud a flatter, lower land that is greying in the mists of a lonely twilight. Wind stirs bleakly through the bushes and the supper fire skirls ragged

streamers of orange flame. The red blankets are spread in a clear open space as far as possible from any bushes. For he who seeks the shelter of greasewood or other desert growths for his bed is likely to attract unwelcome bedfellows. Not that the presence of a warmth-seeking sidewinder is to be expected. But it is something to be cautious about. And scorpions, too, are more apt to be lurking about the base of bushes where they den in the mouse or chipmunk burrows. A bed well in the open is the prudent thing. And a little healthy desert wind hurts no one.

Certainly it does not seem to be hurting Rider, Rudyard or Victoria. For they are at their nightly acrobatics, turning swift somersaults from one end of the spread blanket to the other. Sometimes all three of them, in line, go whirling heels overhead, clear down the whole length of blanket covered earth and back again. Like these nimble tumble-bugs they go so fast that all you can see is a blur of flying brown arms and legs and revolving bodies. And the evening air vibrates with wild shrieks of joy—punctuated by an occasional "Ouch!" as one or the other overshoots the blanket padding and rolls off onto the pebble littered earth.

But such mishaps only serve to add spice to the game. They never seem to grow tired and each night the circus has to be terminated almost by force. Victoria is just as much a somersault fan as the boys. Perhaps more so. She has tried very hard to teach her rag doll "Georgine" to turn somersaults. But so far with only partial success.

It has grown darker. Night is folding down like a shadowy blanket. Tanya has just thrown a fresh armful of dry sticks upon the fire and now sits silent, lost in thought, gazing deep into the red heart of the blaze. The wind has gone down a little and above the luminous drift of the fire smoke, clear stars are winking. I have moved closer to the leaping flames. Not for warmth but because without their ruddy light upon the page I can no longer see to write. Out of the darkness and into the circle of glow about my feet comes ambling a huge old pinacate beetle, dignified, investigative, for all the world like some frock-coated old professor out for his evening stroll. His shiny black body glistens in the firelight as he pokes about, waddling around pebbles, thrusting a curious nose under fallen twigs. Gently I touch him with a slender stick. And instantly he stands upon his head and freezes, his pointed rear end upreared like the menacing muzzle of a siege gun.

Curious fellows these pinacates. And widely distributed. Scorpions are said to abhor them. For very practical reasons. For it is asserted that the pinacate is capable of discharging a cloud of gas that is death to scorpions. I have it on the solemn authority of an old-timer that if you place a pinacate beetle and a scorpion together in an empty glass fruit jar the scorpion will speedily succumb. Whether this be true or not I cannot say, for I have never tried the experiment. There is grief enough among the ranks of our "younger brothers" of creation without humans having to add to it.

WE SLEEP

*We sleep. Whatever be our lot,
Whether by night or day,
We sleep, and we remember not,
Nor do we pause to pray.*

*We sleep. The years flit through our brief
But comprehensive show,
And though we taste of joy or grief,
How little yet we know.*

*We are as microbes on the Earth,
In this, our spirit's youth.
And gain through each recurring birth
One hair's breadth more of Truth.*

—Tanya South

DESERT READERS INVITED TO VIEW YAQUITEPEC PAINTING

Yaquitepec, in both the spirit and color described in Desert Refuge before the Souths left their Ghost mountain home, has been perpetuated on canvas. The oil painting now hangs in Desert Magazine's home, and all Desert friends able to travel through El Centro are cordially invited to stop in and view this painting of the Souths' first desert home.

Thomas Crocker, San Diego, California, artist, had been inspired by the simple natural life led by the Souths. He was determined to preserve a bit of the color and substance of the dream that was theirs on Ghost mountain. He has succeeded admirably. The 'dobe walls built with such labor, the little cisterns they cemented to hold the scant rain that fell, the boulders which hemmed in the tiny pocket-handkerchief gardens, the sun dial they built to mark the hours, the ever-changing light and color of the mountain-top retreat—the very spirit of the Souths' life, all have been blended in color with both realism and imagination by the artist.

Incense Bush

By MARY BEAL

QUITE unaware of its varied possibilities of useful output, most of us think of the Incense Bush as one of the crowning glories of desert spring-time. The picture of low hills and rocky bajadas burgeoning into golden radiance is so entrancing that the thought of anything but beauty never enters the mind.

Botanically this handsome shrub is known as *Encelia farinosa* and it is pleasingly common. In areas where it holds high festival, particularly in Arizona, one of its everyday names is Golden Hills, which will seem fitting if you've ever seen the hills where it abounds ablaze with its glowing color. Brittle Bush too is often used, sometimes White Brittle Bush because of the plant's white aspect.

The common name most favored by botanists is *Incienso*, which came to us from Mexico with the early padres, where its resinous gum was burned as incense, exhaling a strong penetrating fragrance. Thence too came the name *Yerba del vaso*, from its use as a pain reliever. The gum was heated and smeared on the body, especially on the chest and on the side. This versatile resin also served as a primitive chewing gum and when melted made a good varnish.

The domain of this *Encelia* extends from above Death Valley in California down through the Mojave and Colorado deserts into Mexico, eastward into southern Nevada and Arizona. In the northerly part of its realm it appears more frequently as an occasional shrub, scattered here and there or in small groups about mountain bases and on up the stony lower slopes and canyon sides. Going southward its abundance increases, often making a magnificent spectacle that for brilliant splendor is seldom equalled. One such display, that has attracted many a desert traveler, enlivens the slope along the Devil's Garden, from the Whitewater wash up to the mountains bordering the Colorado desert on the northwest.

About Tucson the great sweeps of radiant color with which countless Incense Bushes emblazon the neighboring slopes attract the eye for a distance of seven or eight miles.

Pale grey of leaf and stem, very often quite white, a rounded and rather compact bush 2 to 4 feet or more high, it bristles with dozens of naked flower stems crowned by fragrant showy heads about 1½ inches across, the broad orange disk encircled by wide golden-yellow rays, 3-toothed and somewhat fluted. The felt-like ovate leaves, ¾ to 2 inches or more long, are borne in clusters at the end of the branchlets. They are silvery with short



Encelia farinosa, known variously as Incense Bush, Incienso and Yerba del Vaso.
Photo by the author.

soft hairs that form a matted, mealy-looking covering. From the stout trunk-like base of the plant spring many woody branches, all exuding the drops of amber resin, which made the plant of such value to the Indian tribes.

Encelia frutescens

This is a broad, rounding, sometimes rather straggling bush 2 or 3 feet high. The roughish stems are white, in strong contrast to the bright shiny green leaves, which are 1/3 to 1 inch long, roughened on the under side and margined by minute prickles. The yellow flower-heads are rayless, about ½ inch or so broad, on long peduncles. While the individual heads are not especially attractive they are so plentiful they add good touches of color to the spring pattern. It is one of the common low shrubs found on stony and gravelly mesas and hills in Arizona, southern Utah and Nevada, in the Death Valley area and

down through the Mojave and Colorado deserts.

Encelia actoni

This has much the same habit and general appearance of the preceding species except for the large showy flowers. It has even been classed as a radiate variety of *Encelia frutescens*. The leaves are somewhat larger and white-hairy, the bright-yellow flowers 1½ to over 2 inches broad, the deep golden disk often an inch across. It is such a handsome species that we'd rejoice if it were more widespread and as common as its other *Encelia* cousins. We should thank our stars whenever we catch the glow of its resplendent gold. Which good luck may be ours from Inyo county through the western and central Mojave desert to Joshua Tree national monument. It has been reported from western Arizona, southern Nevada and Utah, where it may be considered scarce.

Calico's Canine Carrier

Many are the stories told of Dorsey, the black and white dog who in the 1880s carried the mail between the present ghost towns of Calico and Bismark in the Mojave desert of California. The story as told here by Cora L. Keagle is from authentic sources. She has talked with many old miners who saw the dog daily. Contemporary newspaper reports gave additional information. Much of the story was given by Mrs. Laura King, familiarly known as "Mother of Calico," who knew the Stacy boys well and who fed the dog almost daily, as he came in with the mailsacks.

By CORA L. KEAGLE



Dorsey, the dog who carried the mail. Photo courtesy Mrs. Lucy B. Lane, Calico.

"**T**HAT sounded like a dog whining outside," remarked Alwin Stacy to his brother, Everett, one stormy evening in the early 80's as they sat by the stove in the one room back of the post office at Calico. The little mining town tucked away in the color-splotted Calico mountains in Southern California, was being swept by a gale which roared through the canyon then spent its fury on the level stretches of the great Mojave desert to the south.

As the slanting rain drummed a tattoo on the tin roof, the sound was heard again. Alwin opened the door narrowly against the blast, shielding the kerosene lamp with his hat. A big black and white shepherd dog, thin and footsore, crowded past Alwin into the warm room, his wet coat dripping puddles on the floor.

"I suppose you'll add him to your collection," laughed Everett, thinking of the numerous dogs in distress which his younger brother had rescued at various times. But even Everett, the practical

mindful, couldn't resist the appeal in the dog's intelligent eyes so they let him stay.

A few weeks of care and kindness transformed him into a beautiful creature that was the envy of all the dog lovers in town. The Stacy's became so attached to him that he was made a permanent member of the family but they never dreamed that they were entertaining a future celebrity.

Everett Stacy was postmaster in the little adobe building perched on the brink of Wall Street canyon, in the days when mining activities wrested 60 millions in silver from this region in 10 years. Alwin was his assistant in the combination post office and jewelry store.

When rich strikes at Bismark, Odessa, Garfield and Occidental, a few miles to the east, caused a rush to the new sites and made another post office necessary, Alwin was appointed postmaster at Bismark and took the dog with him to the new site over the mountain, in East Calico.

Perhaps it was the memory of the spot where he first found kindness that caused the dog, a few days later, to run away over the rock tumbled hills to Old Calico, as the original town was now called. When he arrived Everett decided that he might as well teach him to stay where he belonged, so, after tying a note to his collar, he gave him a switching and pointed up the trail with the stern command, "Go home." The dog went.

After that when it was necessary for the two brothers to communicate, the dog was the note bearer. All that was necessary was to fasten a note on his collar then show him the switch.

The mail between Calico and East Calico was carried over the hill by a young boy, Dave Nichols, for whom the miners had chipped in and bought a donkey. But after a short time Dave had a chance to go to work in the round house at Daggett. Everyone else was too much interested in mining to ride a donkey over the hill, so the new site was without a mail carrier.

Then Alwin had an inspiration. He made two small mail sacks, filled them with some worthless papers and a note, strapped them on the dog's back and showed him the switch. Out he went and up the trail to receive a warm welcome in

Old Calico. On the return trip he carried real mail and for three years, rain or shine, made the daily trip over the hill.

One day as he came in with the mail some one said, "Here comes old Dorsey." Dorsey was the name of an old man who previously had carried the mail. The name stuck. From that time on he was "Dorsey."

The dog learned to love his task and took great pride in it. On the trail he would detour out among the rocks to avoid even his best friend. Any stray dog on the trail would be given a shoulder rush and while the stray was picking himself up, Dorsey would be well on his way.

At the end of the trip a crowd usually was waiting for the mail and watching for the first glimpse of Dorsey, a black speck high up on the mountain trail. Everyone wanted to make a fuss over him but no one was his friend until that sack of mail was off his back. Then, with rolling eyes and wagging tail, he swaggered from one to the other for attention, playing to the gallery like a seasoned vaudeville troupier seeking applause.

When, with the decline in the price of silver ore, most of the mines were abandoned, and the Stacy's decided to migrate along with most of the population, they gave Dorsey to John S. Doe of San Francisco, who had cleared \$7,000,000 in silver in the Calicos and who had long admired the dog.

John Doe took Dorsey to his palatial



At right is the "ghost" of the old post office at Calico from which Dorsey carried the mail. F. V. Sampson photo.

home in San Francisco and gave him everything a dog's heart could desire, but to out-of-doors Dorsey something was lacking. He evidently felt the call of his beloved Calico hills, so, after a few days, he slipped out of the house and was on his way. Mr. Doe could find no trace of him. Through the daily papers he offered a reward of \$100 for his return.

Confronted at every turn by the waters of the bay, Dorsey finally admitted defeat and came back to the house, footsore and

weary, but penitent and apparently content to accept the luxury of his new home and become a proper city dog.

An old miner who remembers Dorsey well, paid him this tribute, "He was the humanest dog I ever saw."

Today Calico is a ghost town enveloped in the silence of the desert but among the roofless adobe ruins you still can see the crumbling walls of the post office building where for three years Dorsey faithfully delivered the daily mail for Uncle Sam.

Town of Calico as it looked when Dorsey carried the mail. The postoffice was about half way up the street on the left. Photo taken in the early 1880s. Courtesy Mrs. Lucy B. Lane.





In the shadows of Superstition mountain, legendary site of the famed Lost Dutchman mine, Ethel Capps prospects for gold—and bees. Hetzel photo.

There's Bees in Them Hills

Ethel Capps really was prospecting for gold—not bees. But the gold proved elusive, while the bees came right up to her back door. That swarming horde could not be ignored, especially with its promise of a flow of honey in a desert land. So this lady prospector subdued her fear of the buzzing creatures, ordered a "How to—" book from a mail-order house, rigged up a sting-proof outfit, and proceeded to prospect for bees.

By ETHEL CAPPS

FOR SEVEN years I've searched for gold in the Arizona desert, with the tall ghostly pinnacles of Superstition mountain on one side of me and the less stately hills of the Goldfield range hemming me in on the other.

I found that gold is scarce—but I'm still prospecting and I have a golden store to show for it. The gold of honey!

My career of prospecting for bees began quite by accident. Never would I have set about it deliberately, for my fear of the winged creatures was deep-seated, dating back to a time in my childhood when an unfriendly one from my father's apiary found its way into my childish bloomers.

But when a couple of swarms came out of a clear sky and settled on bushes beside my cabin, and I found myself suddenly confronted with the prospect of a generous supply of honey away out on the lonely desert, I managed to get them into card-

board boxes to await better accommodations.

Then out of apple boxes I made what partially resembled beehives, and out of wire screen and cloth I made a bee-hat like the one my father used to wear. With the "hat" tucked securely into my shirt collar, trouser legs tucked into anklets, old stocking legs pulled over shirt sleeves and gloves, and all cracks sealed with safety pins until I was quite sting-proof, I went forth to transfer bees.

I got them out of the cardboard boxes and into the hives, but my methods must have been as crude as my equipment, for before I could get an instruction book from the mail-order house and learn what to do and what not to do, my bees had "gone with the wind." The bee-hat joined the rubbish in the ash and can pile and the belated "First Lessons in Beekeeping" went onto the shelf to gather dust.

But history repeated itself this spring and I am now established in the bee business with, not two, but three thriving colonies of bees.

The first slipped into camp unnoticed and before I knew of its presence it had taken up quarters in an old discarded trunk. This one, I decided, should be treated with more consideration than those of my former experience. So I resurrected the old screen hat from the rubbish pile and repaired it, took my "First Lessons in Beekeeping" down off the shelf, blew off the dust, and sat down to educate myself in the intricate art of handling bees.

This time I made a first-class hive out of an apple box and other accumulated lumber and designed it to accommodate honey frames from the store. There was plenty of time to make ready, as the bees were very much at home in the old trunk and were already busy bringing in pollen.

I gleaned enough information from the book to know how to proceed under the circumstances.

The bees must have been in the trunk for some little time. There was considerable comb hanging downward from the ceiling, completely covered with bees at work. Slowly and quietly I turned the lid backward bringing it to rest in a level position on a block of wood, thus placing the

bees and their comb upside down. They seemed undisturbed. Cautiously I placed the hive on the trunk lid beside them, with a gang plank in front for them to march into the hive if I could get them started in that direction. Then I began cutting down their comb and shaking them from it in front of the hive. To my utter amazement, they started marching into it like trained soldiers and in less than an hour the job was completed.

I had learned from the book how to identify the queen bee and was relieved when I recognized her as she went inside, for without her the others would not have remained.

That night I closed the entrance of their hive and the next morning moved them to their permanent location in the shade of a palo verde tree. They are still there, busily engaged in producing honey for my table.

Five days later, as I was working in the yard early in the afternoon, I heard a loud buzzing noise behind me and turned around just in time to duck from another swarm of bees. When it had passed overhead, I arose from the ground and ran after it until I saw it go out of sight over the hill. I knew it would not go far until it settled and I continued in the same general direction, scanning every bush and tree. Several times I was fooled by a growth of mistletoe which looked exactly like a swarm of bees hanging downward from a limb, but finally I came upon them settling in a palo verde, not more than a quarter of a mile from my cabin.

Returning home, I collected what was necessary to gather bees—one of my former box hives, some newspapers to shake them onto in front of it, my bee clothing, and a saw to cut down the limb on which they were settling.

The job of hiving this swarm was not as easy as the first. To begin with, the swarm was immense, about the biggest I ever saw. Then, too, I could not get at the limb to cut it down and had to shake the bees from it onto the paper in front of the box. That caused a tremendous uproar and the bees were flying all around me instead of going into the box and they were continually settling back on the limb. With bees all around me, under my feet and overhead, I tried every way but to charm them to get them into the hive. I pushed them in at the entrance and scooped them up and dumped them in at the top. But the harder I worked the more bees there appeared to be on the outside.

With my dog Trixie, patiently looking on from the shelter of a nearby tree, I worked until sundown. It was not long before the sun went out of sight over the western horizon that I noticed the number was actually diminishing. With the last



Ethel Capps and her three colonies of bees under a palo verde tree.

bee in, I sealed the entrance and all large cracks and carried my prize home.

It was about a week before I could get a real hive brought out from town and by that time the bees had the top of the box well covered with comb full of brood and honey.

I also had an extra hive brought out for any other swarm which might take a notion to come along, and only a few days after it arrived I was told of some bees having settled under the porch of an old abandoned house. When I arrived there to see about adding them to my apiary, I found them making brood and honey underneath the floorboards of the porch,

amid the dirt and rubbish that had accumulated throughout the years. By prying up the boards, they became easily accessible and, though a small swarm, it became the third colony of my increasing apiary.

Since then, three swarms have passed by me while I was prospecting on my claims, until now I keep a cardboard box handy, ready for the next one that comes along. A fellow prospector has caught one swarm and has seen several more go by. I have been told that the crevices in the cliffs of the Superstition mountain are full of bees and running over with honey.

Yes, sir! There's bees in them hills instead of gold.

The author cutting honeycomb from the box top. They are shaken from this onto the bed sheet and readily take refuge in the new hive.



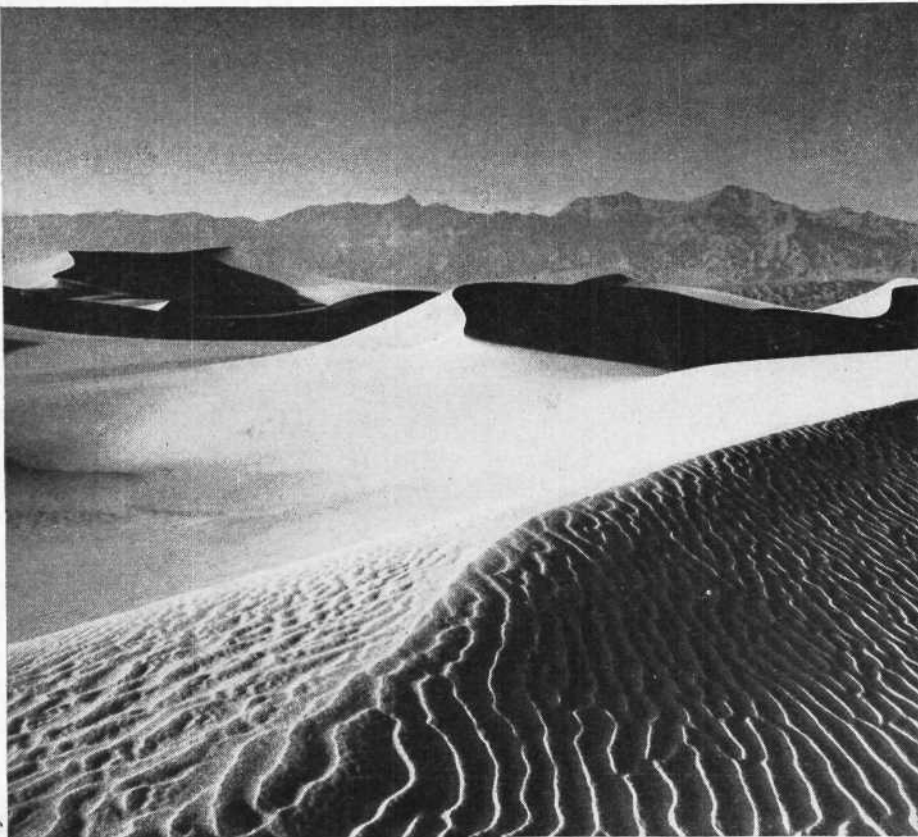
Desert

The deepest secrets Nature has hidden in the desert can never be told in decimals and dollar signs. They are written in intangibles of peace of heart . . . of rest . . . of strangeness . . . of mystery, magic, adventure, allure. Not everyone discovers them; no one knows them all.

How does the desert weave its seductive spell? And where? . . . In its distances. By its sundowns. On its far, purple mesas. Down in deathly alkali sinks. Up from parched arroyos. Across hazy, blue bajadas. With painted, palm-fringed canyons. On shimmering thirsty malpais. In the throat of a yucca flower.

By JOHN L. BLACKFORD

Photographs by the author.



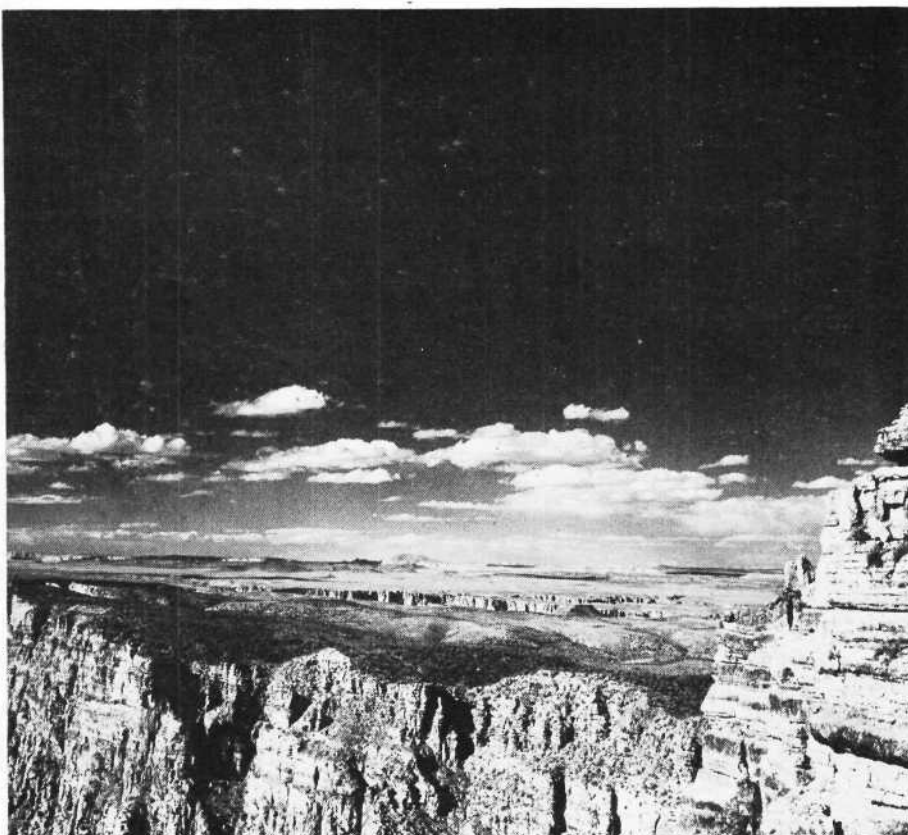
1

Dunes of Death Valley

1—Ephemeral as sand paintings of the Navajo are the dunes of Death Valley, shaped into patterns of spectral beauty by the wind—only to be erased swiftly once more. Sometimes their transient particles are cement-

ed to rock, before hurrying fingers of the wind can hasten them on. Then sandstorms bite at the rocks, exposing them, wearing them, returning them to dunes all over again. That is the lesson of the desert—nothing is changeless, patience is all.

2



Desert of the Little Colorado

2—Off in its distances—blue or violet or grey, the desert contrives its greatest magic. In distances there is the eternal question: What is out there? No one knows. No one ever has discovered. When you go—when you reach the Out There, you turn to find you've left them, the distances, behind you. It's always that way on Arizona's desert of the Little Colorado—the great sky, the powder-puff clouds, the vastness of the beyond, the final tantalizing blue veil that conceals it.

Monument Valley, Arizona-Utah

3—In its deep shadows lurks much of the desert's mystery. They do not venture out when the sun is high over the Navajo's Tsay-Begeh. They crouch behind mesas and hide in deep canyons. They lie on the wrinkled sand of mornings to steal away to sleep at noon. But at evening they leap across the washes like black leopards springing from their lairs at sunset.

Magic

CAMERA NOTES OF THE AUTHOR-PHOTOGRAPHER

There is always something uncommonly fascinating about photographing the desert. Here Nature is in the nude, and lighting, earth color, shadows and a bizarre bit of dress subtly enhance her contours.

When a picture succeeds in portraying something worthwhile to others, it usually has its own story for the photographer. A breathless half-mile race over yielding sands against a sun setting red behind the smoky Panamints barely secured "Dunes of Death Valley." I set the $3\frac{1}{4} \times 4\frac{1}{4}$ Speed Graphic at $\frac{1}{2}$ sec., F:32, using an A filter and Super Panchro-Press film. It struck me oddly that the fast lengthening dune shadows might be advancing too swiftly for that slow timing. When waiting for obdurate clouds for half an hour below the rim of Grand Canyon, I suddenly realized I had on my right a far more intriguing panorama of the Desert of the Little Colorado. A Duo Six-20 set at $\frac{1}{10}$, F:22 with Plus-X film and G filter captured Mesas of Monument Valley. From wrinkled barren mountain slopes to a range of mystery is the transformation wrought between noon and evening upon the alluring Santa Catalinas; Speed Graphic, $\frac{1}{5}$ sec. at F:32, A filter, Super Panchro Press film. You wade Aravaipa creek at every bend along its colorful canyon. The accompanying view was taken with a Speed Graphic, $\frac{1}{5}$ sec., F:22, G filter and Super Panchro film. Storm Clouds over the Joshua Forest did cover the road to Pierce's Ferry with several inches of snow on March 16, 1942. In Monument Valley, Tsay-Begeh of the Navajo, the Totem Pole may be glimpsed through numberless stony portals, each entirely different. The two photographs of Monument Valley were taken with A filter.

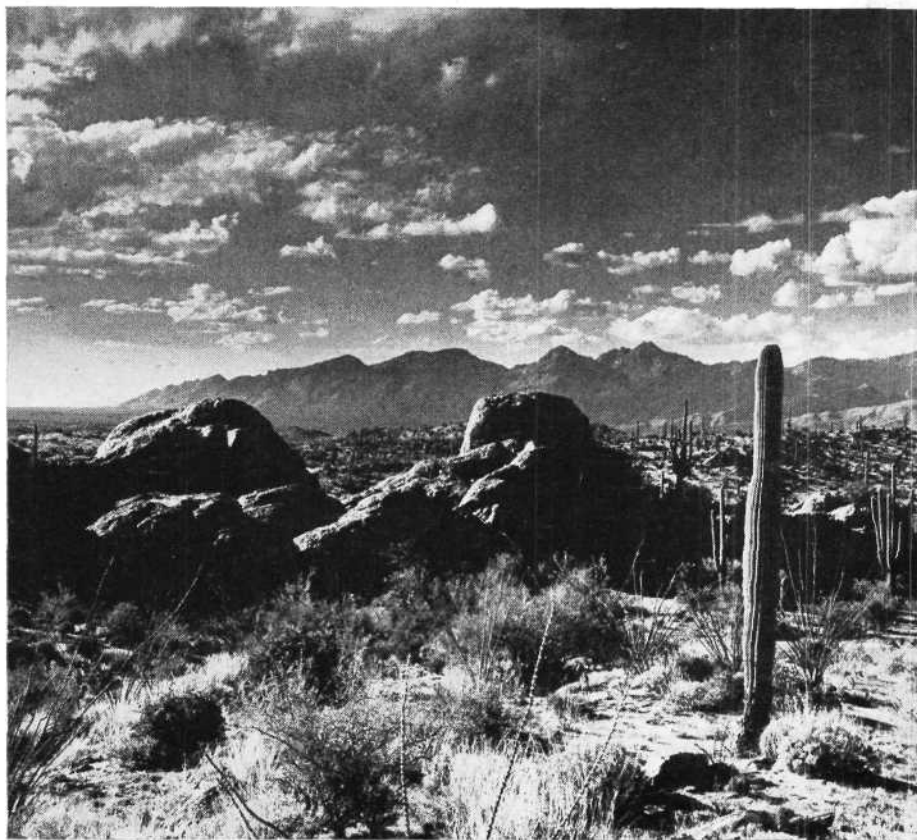


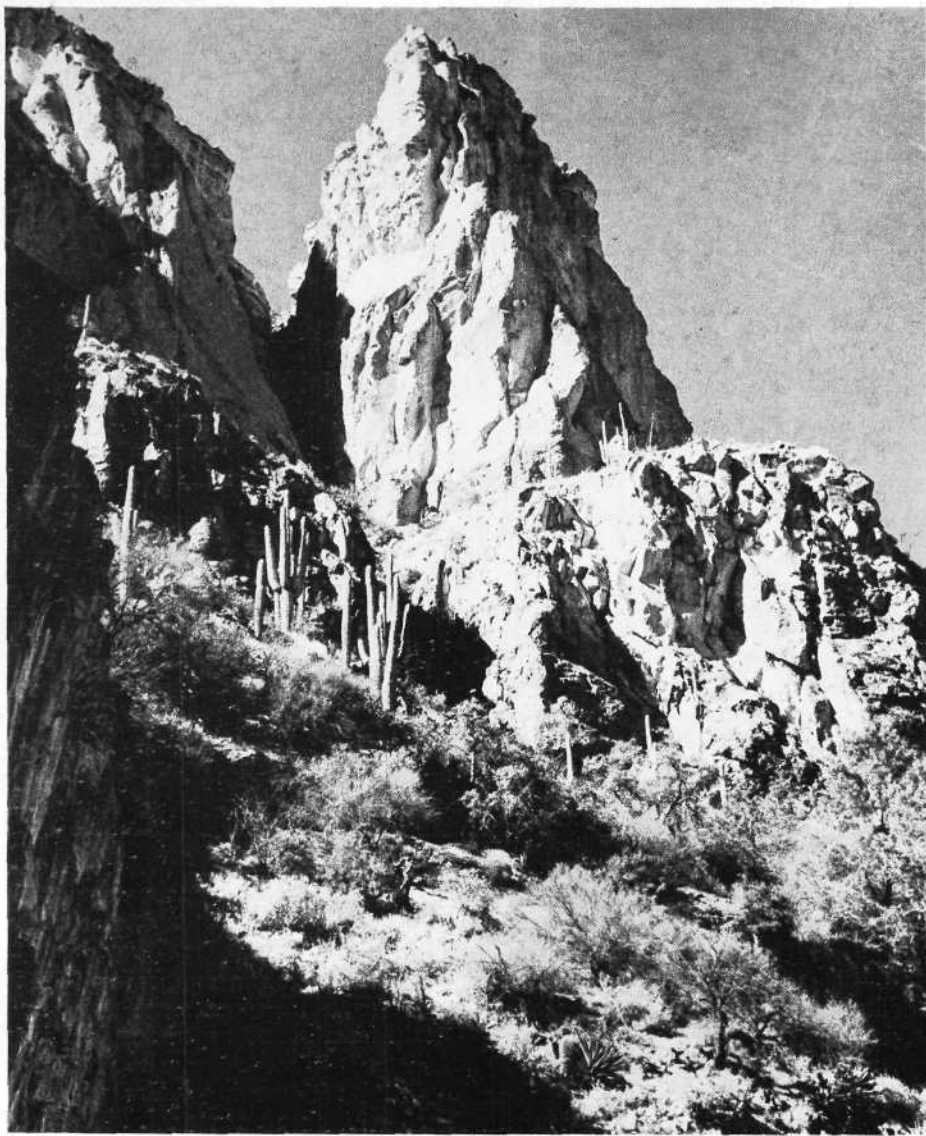
3

Santa Catalinas, Southern Arizona

4—At sundown, as gossamer cloud fleets ride and rock above the Santa Catalinas, the desert imparts strange secrets. Tiny elf owls peer from round doorways in giant saguaros. Bats swirl from black caverns in the rock,

4





5

6

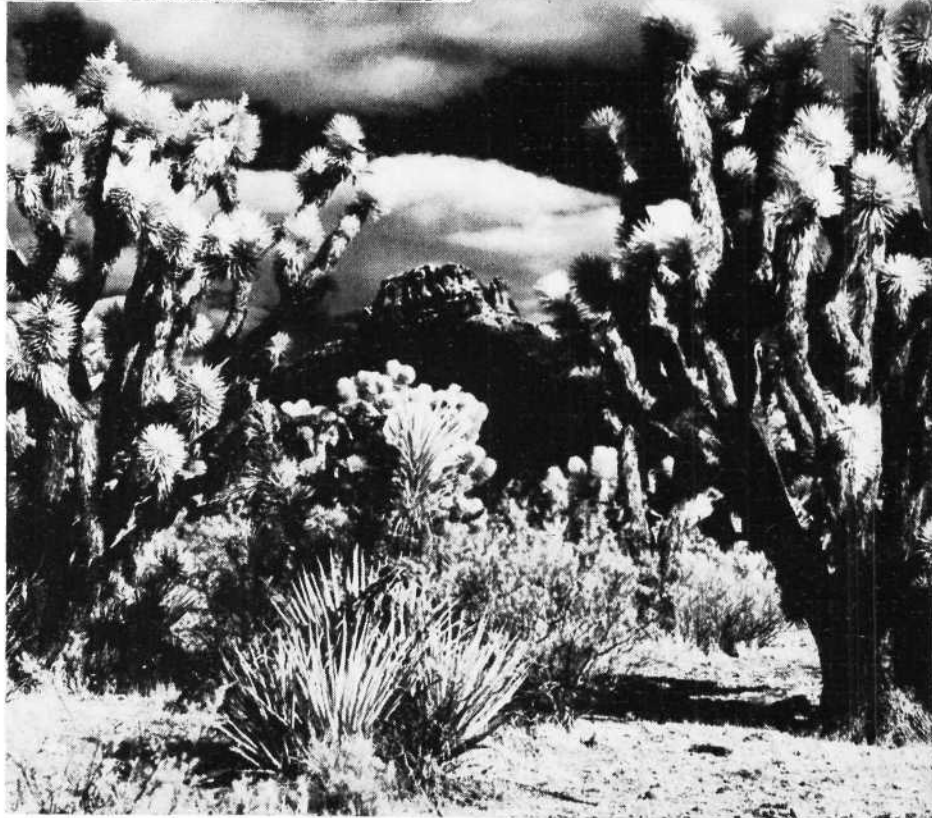
delicate scent of cactus blooms captures the air.

Aravaipa Canyon, Arizona

5—Through the desert's spaces, through the quivering heat of far cactus reaches, is the paradise of Aravaipa canyon. The stream is crystal cool, the birds bright, the bowered leaves shining green. Crimson wings flash. Songs pour ebulliently. Witching waters tinkle and splash. Yet old Don Saguaro climbs down the brilliant Arizona cliffs to proclaim that this too is the desert's own, this bit of heaven.

Joshua Forest

6—In its scorching heat, its desolate silences, its withering drought the desert speaks intimately of itself. But this land is not waste. Moisture will come again. The desert will flower. Along the lonely way to blue Lake Mead, the trail winds through a fan-



tastic Joshua forest. Overhead menacing spring clouds threaten that even snow may come to the desert.

Totem Pole, Monument Valley

7—Burnished by moon beams, flooded with black pools of shadow, Monument Valley dissipates all sense of reality. It is the Ultimate Land. And from its strange heart thrusts the Totem Pole like a golden shaft from the glittering sand.

• • •

Across mesas and canyons and dunes, smouldering garnet and gold and mauve in the sunset, through silver mirage of alkali basins, beyond sharp purple peaks of the ranges, the desert is waiting. If you go, you will never come back. Only a part of you. Something of you left there keeps calling. That is the desert . . . its magic, its mystery.

No. 7 on next page.



JUNE, 1943

BOOKS OF YESTERDAY AND TODAY

—a monthly review of the best literature of the desert Southwest, past and present.

INDIAN'S LIFE BETWEEN TWO WORLDS PORTRAYED

The conflict which always has prevailed between Navajo and white man is powerfully portrayed in the new novel, **ARROWS INTO THE SUN**, by Jonreed Lauritzen.

It was not until his mother, Nijoni, a beautiful Navajo girl, was killed by a band of raiders that Sigor realized the deep conflict there always would be within him . . . for, although his father, Dennis, was a white man Sigor nourished a hatred for all others of the white race.

Upon the death of his mother, he was persuaded to go with his father into the Mormon territory to face a future among white men. Here he fell in love with Hallie, a beautiful Mormon girl, and became fast friends with her brother Cory.

But Sigor was not happy here and loyalty to his mother soon forced him to return to the tribe of Diné warriors. Nor could he resign himself to the merciless treachery of these people whose creed was "we must do much fighting, killing, so that our enemies will not become greater in number than ourselves and take our mountains and valleys from us."

And so his was a lonely destiny, to wander through the canyons seeking to find comfort in the philosophy of his father . . . "you must learn what to do with loneliness until you come to the city within yourself. For you are a city of refuge.

It is the universe about you that is the lonely place. It is to you that all the spirit things of the world may come to find a mingling place. True loneliness will come only when you are with others who disturb the quiet of your inner world."

The setting of this story is in the fascinating canyon country of Utah. It is the first novel of Mr. Lauritzen, who writes authentically of this region where he grew up and spent much of his time exploring. The story is told with a beautiful sincerity and true understanding of this Navajo country where "in the bright colors of its cliffs and in the loneliness of its mesas is the Navajo spirit."

Published by Alfred A. Knopf, New York, a Borzoi book. 311 pp. 1943. \$2.50.

—Evonne Henderson

NATIONAL PARKS DESCRIBED FOR AMERICA'S YOUTH

Inspired over a decade ago by the awesome grandeur of Carlsbad Caverns, Irving R. Melbo came to feel a new significance in the natural wonders of this country in general, and the national parks in particular.

During the years that followed he was always looking beyond the physical beauty and scenic attractions of Yellowstone and Yosemite, Mesa Verde and other national parks. He was seeing and feeling the spiritual and moral inspiration which stem from these natural creations.

Out of that spirit has come a splendid treatise, **OUR COUNTRY'S NATIONAL PARKS**, published in two books in 1941 by Bobbs-Merrill company. Believing that the national parks have a special interest and significance for the youth of America, Mr. Melbo has written these books in language it can understand.

Each of the 26 national parks is treated in a casual informal manner with human interest stories and humorous anecdotes interrupting the historical and scientific portions in a manner that will hold the interest of everyone.

Photographs, maps and drawings combine with the text to present a complete picture of each of the parks, so that in these days of difficult travel and few vacations readers can take a refreshing trip through scenic America while ensconced in the comfort of their homes.

Each book contains 244 pages, priced at \$2.00 per volume. Book One covers the parks of the Southwest, South and East, while Book Two treats the Pacific Coast parks and includes Grand Teton and Rocky Mountain national park.

—Cpl. Rand Henderson

SAGA OF GOLD UNFOLDED IN AUTHENTIC HISTORY

You may not actually have panned gold yourself, or staked an old prospector, or joined in a rush to a new lode, but you have been pulled irresistibly by the cry of "Pay Dirt!" Those meaningful words have guided the lives of millions of men, changed the history of the West, made and destroyed cities overnight.

The whole blood-quickenning story is revealed by Glenn Chesney Quiett in his **PAY DIRT, A PANORAMA OF AMERICAN GOLD-RUSHES**. Amply illustrated, written with scholarly care and penetrating insight, the book's 500 pages present a record of the West's mining camps and mining men.

The Forty-Niners of California have first place in the book, then the Cripple Creekers enter the scene. Chronologically and geographically, Quiett shifts the scene to the north, into the Black Hills, and up to Alaska. Finally is revealed the story of gold in the Southwest, desert rats of Death Valley, the five big booms of Nevada.

For well-authenticated history, mingled with entertaining anecdotes, this is a treasure. Here you will find tales of lost mines, stories of gamblers and desperadoes who were a colorful part of the boom mining towns.

It gives a complete picture of American gold-rushes, adding perspective to the saga of development in the desert Southwest. If nothing else, it will give the reader a feeling of kinship with the old prospector who plods hopefully on with his burro, hoping that he may be the next to shout the glad cry of "pay dirt!"

D. Appleton-Century Co., N. Y. 1936.

MINING STORY MINGLES HUMOR WITH TRAGEDY

THE PARDNERS by John Weld is a novel of the California gold rush. It is a robust story of men far from civilization, of "the diggings" back in the mountains where every pound of supplies had to be packed by man or mule.

Partnerships were the rule in the gold camps. They saved expenses and they helped to dispel the loneliness. Ira Allen, 20 and inexperienced in the ways of the camps, and Savannah, older and wiser—a ship's carpenter by trade, form just such a combination. Humor and tragedy intermingle through a brief 18 months of the gold rush, as the story unfolds.

There is something of the humor of Mark Twain and the realism of Bret Harte in the strange mixture of good fortune and stark tragedy. If anything, there is too much realism. The story is grim but powerfully handled.

Charles Scribner's Sons., New York. 349 pages, \$2.75.

—Marie Lomas

TALES OF LOST GOLD



The thrill of man's struggle to find legendary lost gold mines of the West pulse through Philip A. Bailey's "Golden Mirages." It is a gold mine of Americana, containing the history, legends and personalities of old California and the Southwest—the gift to give this Christmas.

"Without question the most complete record of Pegleg Smith lore ever to be printed"—Randall Henderson.

Colorfully illustrated with photographic halftone engravings, bibliography and index.

\$3.50

DESERT CRAFTS SHOP
636 State St. — El Centro, California

LETTERS...

DM Rationing Doesn't Work...

Evanston, Illinois

Dear Friends:

Enjoying the Desert Magazine is second only to enjoying the desert itself. When the first issue arrived, I rationed out the articles to myself, so I would be reading them until the next one should come. When the second number arrived, despite my best efforts, I had read it all in five days. Now, with the March issue, I devoured it all immediately!

I especially enjoyed Charles Kelly's story of the Dirty Devil in the February number. I have chosen the Dirty Devil, the Henry mountains and surrounding country as my special interest, and have had the pleasure of two visits there, meeting Mr. Kelly on one of them.

Thanks so much for spreading the desert glow to us who are far away, without cheapening its precious beauty.

ERNEST H. LYONS, JR.

True or False Misleads...

Pomona, California

Dear Sir:

Just a note that should not be taken seriously. On the 15th question of April True or False, "The Desert Lily is the only true lily found in the Southwest desert."

Much depends on what is meant by "true" lily. The basis of judgment might be one of the following: (1) Is it a species of the genus *Lilium*; (2) Does it closely resemble externally a species of *Lilium*; (3) Does it belong to the same tribe of the lily family as *Lilium*; (4) Does it belong to the lily family in general.

By (1) the Desert Lily is not a true lily. By (2) it might be counted as a rather true lily. By (3) it is not a true lily but the three or more desert species of Mariposa lilies are true lilies. By (4) it is a true lily—and so are the 15-25 other desert species of the lily family.

E. M. HARVEY

Dear EMH: Your criticism is justified. Quiz editor was too vague, but had in mind your (2), the criterion by which non-botanists would be most likely to base their judgment.

—L.H.

Ad Brings Wide Response...

Tonopah, Nevada

Dear Sirs:

It may interest you to know that my ad inserted in your columns drew almost 100 letters in answer, and from almost every state in the union.

T. J. NICELEY
Anjux Mining Co.

Minnesota's Desert...

Minneapolis, Minnesota

Mr. Henderson, Ahoy:

Two years ago some pals in California sent us a year of Desert for Christmas. The results? Desert is read from cover to cover, including the advertisements—and in our hearts we are tramping the sands or brousing the old mine dumps with you.

You people wouldn't admit we have any desert land here in Minnesota, but we do have sand dunes just outside the city, known as the Anoka Dunes, and we have a sandy strip of land reaching almost across the state. The thing most gemmologists remember about us is the red and grey agate, thompsonite and jasper that come from our glaciated state. Would any of the other readers like to exchange some specimens with us?

We have a small outfit to do our own cutting and polishing, along with a number of other Minneapolitans. Several make their own rings and clips and necklaces. Whenever they come over to our house they make for the Desert Magazine. I have to watch it or the latest issue would walk right home with them.

MRS. B. G. DAHLBERG

Largest Tin Deposit in California...

Los Angeles, California

Dear Sir:

In your January issue under Mines and Mining I notice a paragraph under Reno, Nevada, with the statement the most tin ever discovered in the U. S. has been mined or blocked out in the Majuba mountains of Nevada.

The largest deposit of Cassiterite ore (tin) has been located in the Bullion and Lead mountains of San Bernardino county, California. This is a property covering 500 acres with assays showing from five to plus 20 percent tin. This is only one property of which we are locators. We have two others, full details of which we cannot yet make public.

I have been in the mining business over 40 years, mining in all parts of the world. For the past 20 years I have been a student of geophysics, and my associate Professor C. M. M. Wright is also a keen student. Whereas Marconi spent the last several years of his life studying the value of radio energy in the treatment of disease, we have spent our time testing radio value in locating minerals. We are just entering what may be called the field of vibrations and magnetic attraction, one in which we may find more wonders than the mind can now conceive.

MAJOR A. J. TERRILL

Jungle No Good for Rockhounds...

Tropical Africa

Dear Lucile:

Your April issue just arrived in this far-off corner of the world and I want to register a kick because you omitted the Letters page. To a former desert rat over here in the Bush country, the letters page in Desert Magazine is just like mail from home.

And now that I've gotten that complaint out of my system I want you to know that I enjoyed the April number immensely.

I often go out on weekend trips into the Bush and Jungle country around camp, and it is all strange and interesting—but I still prefer the great American desert. Here one has to stick to the main roads—the jungle is too thick to do otherwise. Generally it is too dense even to walk through unless one has a machete to cut a trail. My most delightful experiences on the desert were along those winding trails that lead off from the main highways toward distant mountain ranges, and invariably end at a homesteader's shack or a prospector's camp or a hidden tinaja.

This is a fascinating region for a botanist—but a helluva place for a rockhound. How can one hunt gem specimens in vegetation so thick a boa constrictor can hardly squirm through?

I've just learned that Barry Goldwater has purchased Rainbow Lodge on the trail to the famous Natural Bridge. Barry is a true son of the desert. I am glad it was he rather than an eastern capitalist who gained possession of it. I've always been afraid that resort would fall into the hands of one of those high-pressure promoters who would immediately build a 90-mile-an-hour boulevard in there and install ornamental lampposts on the Bridge. Please have Barry reserve a couple of pack animals for me the first month after the war is over. And I hope I find Katherine and Bill Wilson still at the lodge cooking the ham and eggs and throwing the diamond hitches on the pack ponies.

RANDALL HENDERSON

Wants a Book on the Souths...

San Francisco, California

My Dear Sir:

When are you going to publish a book by Marshal South incorporating his monthly letters to your magazine? Undoubtedly you must have this in mind, and I hope it materializes.

The monthly letters are delightful, and vaguely reminiscent of Stevenson in their understanding and appreciation of simple living. They are written by a highly civilized man, and I think, if you incorporate them in a book, you will find yourself with a best seller.

RICHMOND W. STRONG

Objects to "Three Babies" Version . . .

Yuma, Arizona

Dear Mr. Henderson:

After reading, enjoying and accepting as accurate Van Valkenburg's articles on the Navajo, it was a real shock to find Joyce Muench's story on the Papago shrine, as printed in your March issue.

The legend, as reported, is entirely false in all details. The shrine is the burial place of four children, two boys and two girls, who were thrown into a spring which threatened to flood the entire Papago country. The sacrifice dried up the flow and the flood was averted. (While there is no geologic evidence of a spring at the site, there is evidence on the ground that the wash which now flows eastward north of the hills northwest of the shrine at one time, perhaps for a short time, flowed down over the shrine site, and this may have been the origin of the spring story.)

The shrine is a mile and one-half northwest of Santa Rosa, on the Ventana-Hickiwan road, and Santa Rosa is 12 miles north of Quijotoa.

For accurate reporting of the Wi-ikita or more properly the Vi-ikita, see Southwestern Monuments Special Report No. 16, April, 1937, in which Charlie R. Steen of the national park service, Isabelle Pendleton (illustrator) and myself described in detail the entire ceremony for the first and only time.

JULIAN D. HAYDEN

Dear JDH: Desert presented Mrs. Muench's story as but one version of the legend, and called attention to the more common version which you have outlined. Below, Mrs. Muench gives her sources for the interesting account which was printed in the March issue.

—L.H.

Author Gives Legend Source . . .

Santa Barbara, California

Dear Miss Harris:

Indian legend and history alike were carried on many lips before it was put into writing and so subject to the eternal qualities of man's mind which never turns out anything quite the same when once it has passed through the filter of his own personal interpretation. But the essence of a legend is not so much in its details as in the truth about the people who treasure it, handing it down through their generations.

My husband and I were informed about the presence of the Baby Shrine when we went through Casa Grande, Arizona. A very cordial gentleman there, a state senator, described it and located it for us, telling us the story as he had heard it. It was a delightful place and it was easy to believe that in this country where water is so necessary and so precious, that a

drought would call for the greatest sacrifice people were capable of making.

We went on to a nearby trading post and heard the same version of the story repeated there. We are aware of the version to which Mr. Hayden refers and which was mentioned in the March issue.

I have had some scientific training myself and have the greatest respect for research and those who conduct it. It is quite in keeping with such thinking to say about a legend that having studied all of the available material my own emotional constitution permits me to continue to enjoy the beautiful tale of a drought averted through the heroic sacrifice of children (three or four, it matters not to the tale) to save the tribe.

JOYCE R. MUENCH

More on Papago Legend . . .

Rye, New York

Dear Mr. Henderson:

I was interested to read in the March issue the article by Joyce Muench on the Shrine of the Three Babies.

I visited this shrine on one of my trips through Arizona. The version of the legend which I was told differed in that the children were supposed to have been sacrificed to save the Papago country from a flood instead of a drought. I must say, though, that Mrs. Muench's version appeals to me more after visiting that country.

RUTH C. WOODMAN
Author of Death Valley
Days radio program.

DM Liked by Boys Overseas . . .

Fallon, Nevada

Dear Sirs:

Desert Magazine is enjoyed by our entire family. My son overseas wants us to preserve every copy for future enjoyment. The subscription recently ordered was for an 18-year-old son who has just entered the service. He wanted it for the entertainment of his six buddies as well as himself. Seven occupy a cabin together. Young people enjoy your magazine quite as much as older people, and I want to express my thanks to you for your part in helping keep our boys happy.

BEULAH BUCKNER

Suggests Poetry Anthology . . .

AFRD-Hammer Field
Fresno, California

Dear Randall Henderson:

I have read with great pleasure late copies of Desert Magazine here in our field library.

The verse is excellent. Strikes me as singularly fine for poetry of the desert. It would be most interesting to publish an anthology of desert poems from those you have collected in Desert Magazine—poems which to my knowledge are the best ever written on the desert.

PVT. SELMAN WARREN STONE

About Desert Glaze Materials . . .

Los Angeles, California

Dear Mr. Henderson:

Being foreigners from back East my wife and I are just learning our way around in this wonderful land of yours.

A year ago we hadn't discovered DM. Now Life, Satevepost, Esquire and Reader's Digest are just a few of the big timers that collect dust until we finish Desert from kiver to kiver.

We want to thank you—your magazine personifies everything we'd hoped to find in the West. We anticipate, when the gas tanks are full again all over the world, accepting some of the invitations to adventure the articles in your magazine have already offered.

In the meantime, I wonder if you could help us get a head-start on one of those adventures. My wife and I are potters. We have been told that western desert minerals can supply glaze materials that surpass those produced by the Chinese potters of the Sung and Ming dynasties.

I wonder if it has occurred to you that California's horde of ceramists might be interested in a department specializing in ceramic minerals, their location and the methods of converting them into clay and glazes.

We would enjoy corresponding with any of your readers who are interested in the subject.

L. G. TACKETT

DM Will Draw Post-War Travel . . .

San Francisco, California

Dear Miss Harris:

Have been a reader of Desert Magazine for a long time and think you have done a wonderful job in bringing the desert in all its beauty to those of us who cannot visit it more often.

I am confident that after the war thousands upon thousands of Americans will go there for health and relaxation. No small part of this will be due to your efforts. Keep up the good work.

DARWIN ACHESON

Wants Bigger Maps . . .

San Diego, California

Dear Sirs:

You are doing a fine job to carry on while the big boss is doing his part for Uncle Sam.

One thing I think would be of great help is a map of the Southwest with all points of interest marked on it. For instance, if John Hilton goes into the Valley of Fire, I would like to know just where that is and its location compared to other parts of the country.

You do publish location maps, but they do not take in enough territory. We can go to a regular map, but the interesting points are not marked on such a map.

GENE SKINNER

THE DESERT MAGAZINE

YELLOW ASTER

The April landmark contest, calling for identification of the Yellow Aster mine at Randsburg, California, drew many interesting entries, some from men and women who had lived within view of the famed glory hole and knew much of its history at first hand. A double prize of \$5.00 each was awarded two contestants who gave the most complete and interesting versions. Winners were Elwain S. Culbert of Los Angeles, California, who is now an army private with the Service Battery, Camp Chaffee, Arkansas, and L. G. Blakemore, mining engineer and geologist of Los Angeles. Their stories are combined below.



By ELWAIN S. CULBERT and L. G. BLAKEMORE

The landmark photo shows the Yellow Aster mine dump and the town of Randsburg, located on the Mojave desert in the extreme eastern part of Kern county. Named for the Rand gold mining district in the Transvaal, South Africa, the town itself consists of a single street, with a collection of ancient buildings lining either side. The weather-worn cabins are scattered over the hillside and stand out in the sunlight with their galvanized iron roofs.

Randsburg has lived through three mining booms. First, gold was discovered in April, 1885. Then tungsten was found in April, 1905, and finally silver was discovered in April, 1919.

In 1893 Ramsey Cox located and worked the Goler and Summit placer diggings. John Searles was hauling 20 Mule Team borax and the placer strikes were made within a few miles of his road. Three of the placer miners, C. A. Burcham, John Singleton and Fred Mooers were destined to discover the Yellow Aster mine in the Rand moun-

tain. In 1893 Singleton, whose eyesight was bad, thought he had discovered gold there. And two years later he, with Burcham and Mooers, struck their picks into the outcrop of the Yellow Aster mine. During these two years, Burcham's wife, Dr. Rose L. Burcham, had grubstaked the men.

Originally known as the Olympus mine, later as the Rand mine, its name was changed again in 1897 when the Yellow Aster Mining and Milling company was organized. It is located near the top of Rand mountain just south of Randsburg and was for many years the largest gold mine in the state. The rich ore from the Yellow Aster was at first shipped, but within a short time the proceeds from the mine were sufficient to allow for the erection of a 30-stamp mill which began operation early in 1901. The 30-stamp mill proved too small, so in 1903 a 100-stamp mill was built. A water well five miles down the wash was sunk 200 feet to furnish the water supply.

The Rand Mining district was first or-

ganized at a meeting on December 20, 1895. The town grew into a typical mining camp, and just prior to the World War it had a population of over 1,000. In 1898 a railroad was built from Kramer to Johannesburg, about a mile distant from Randsburg, but prior to that time everything needed from the outside world had to be hauled 50 miles by team from Mojave. The Yellow Aster provided the payrolls although a number of smaller mines—the King Solomon, Big Butte, Little Butte, Consolidated—produced \$500,000 each or better.

The district underwent another boom when John Churchill located Mine No. 1 of the Atolia mines and in 1915 tungsten was the cause of the "war boom" in Randsburg, as the mines were worked day and night in the "Spud Patch" to recover the heavy metal.

In 1919 the town was again alive with activity, when silver was struck. Wade Hampton Williams and Jack Nossor were responsible for this discovery, after "Hamp" had recognized hornsilver in

an old prospect hole three feet deep. The town overflowed with people, and a bank was erected in Johannesburg.

Today Randsburg (3,423 feet elevation) has about 450 population. It is located in the heart of the Rand Quadrangle where there are two other almost equally famous mines—the California Rand Silver mine in Red mountain, and the Atolia Mining company, known for its tungsten deposits. At present all gold mines in the district have been closed by the federal government.

The climate is quite arid, with long hot summers, the temperature often at 105 degrees, but during the winter and spring the weather is freezing and light snow is not unusual.

Randsburg is on Highway 395, easily accessible 143 miles from Los Angeles by way of Mojave and Independence.

HURRY . . .

YOU HAVE ONLY A FEW DAYS TO MAKE A BIG SAVING ON YOUR OWN DESERT SUBSCRIPTION AND YOUR GIFT ORDERS.

Make out your gift list now and mail it with your subscription today. To take advantage of the special low rates now in effect, your order must be mailed before JUNE 1.

The annual subscription rate will remain at \$2.50 . . . but after June 1 each additional year in a subscription order will be \$2.00. The rate may apply either to renewal or new subscriptions, and may be for a several years' subscription or for several annual subscriptions to different addresses. Thus, after June 1, a four-year subscription or four one-year subscriptions will cost \$8.50. If your order is sent before June 1, this order would cost but \$7.00. You save \$1.50 if you ACT NOW.

ONLY UNTIL JUNE 1, may you have your subscription extended, or send in new subscriptions at the present extremely low rate of \$2.50 for the first year and only \$1.50 for each additional year or subscription in the same order.

Take advantage of the present gift rate NOW. No subscriptions received after June 1 will be accepted at the current discount rate. We shall be happy to give personal attention to your gift orders.

DESERT MAGAZINE
El Centro, California

TRUE OR FALSE

Answers to this month's quiz all have appeared at various times in Desert Magazine. The subjects cover geography, history, botany, mineralogy, Indian lore and general information about the desert. Even if you have not been a steady reader of Desert, you probably will answer half of them correctly if you are an average student of desert lore. A score of 15 automatically initiates you into the Desert Rat fraternity. Those who make a better score are entitled to the degree of S.D.S. (Sand Dune Sage). Answers are on page 35.

- 1—When buying Navajo rugs one must be almost an expert to determine their authenticity. True..... False.....
- 2—Canyon del Muerto was the most dangerous section of the Camino del Diablo, or Devil's Highway. True..... False.....
- 3—A tunnel runs through San Jacinto mountain, near Palm Springs, California. True..... False.....
- 4—A night-blooming cereus grows from a bulb. True..... False.....
- 5—Lake Calhoun once inundated most of Imperial Valley. True..... False.....
- 6—Shiprock in New Mexico is the English translation of the Navajo name for the rock. True..... False.....
- 7—The Desert Ironwood tree belongs to the pea family. True..... False.....
- 8—Smoky topaz is actually quartz crystal. True..... False.....
- 9—As far as is known there were no human inhabitants of Death Valley before the Death Valley Party of 1849 arrived. True..... False.....
- 10—The Smoki clan is one of the most powerful of the Hopi Indian clans. True..... False.....
- 11—Dinosaur national monument is in Monument Valley, Utah. True..... False.....
- 12—The dunes of White Sands national monument of New Mexico are not composed of sand. True..... False.....
- 13—Dr. Clarence G. Salisbury is known for his work with the Navajo alphabet. True..... False.....
- 14—The first white men to visit the Hopi pueblos were the trappers and "mountain men" who preceded the gold-seekers. True..... False.....
- 15—If after a morning spent in rock-hunting you returned to your desert camp about 2 p. m. you'd very possibly find kangaroo rats helping themselves to your lunch. True..... False.....
- 16—Tourmaline is always pinkish in color. True..... False.....
- 17—Pinyon nuts are usually one-half to three-quarters inches long. True..... False.....
- 18—Rhyolite was one of the early California mining camps in the Death Valley region. True..... False.....
- 19—"This is the place," notable words remembered by all Mormons, were said by Brigham Young as he gazed upon the future Utah. True..... False.....
- 20—Po-pé, who planned the Pueblo revolt of 1680, was a Taos Indian. True..... False.....

HERE AND THERE... on the Desert

ARIZONA

Sharlot Hall, Writer, Dies . . .

PRESCOTT—Death came April 9 to Sharlot M. Hall, 72, one of Arizona's most famous citizens. She was one of the best known poets of the West, associate editor of Out West magazine and contributor to many others, state historian and lately curator of Sharlot Hall museum here, which houses many of the state's earliest relics. At the age of 12 she had come to Arizona territory in 1882 with her parents and had spent most of her life on a ranch south of here. Governor Osborn and other state officials, pioneers, Indians and civic leaders paid tribute to her at the simple impressive funeral services.

WAACS Get Beauty Parlor . . .

TUCSON — First detachment of WAACS assigned to this area arrived May 1 from Fort Des Moines, Iowa, to be stationed at the Marana basic flying school. Besides their independent quarters, mess hall and recreational facilities, a beauty parlor has been provided for them. They will serve primarily as clerks, stenographers and photo laboratory technicians.

Big Lumber Contract Let . . .

FLAGSTAFF—Award of government timber contracts for more than 710,000,-000 feet to Southwest Lumber Mills, Inc., was announced by William Donner, superintendent of Fort Apache Indian agency at Whiteriver, and the regional forest service office at Springerville. Largest contract included about 400,000,-000 feet of Indian reservation timber in the Maverick lake unit, for a blanket price of \$3 per 1,000 feet. It is made up largely of ponderosa pine, Mexican white pine, Douglas fir and spruce.

"Corky" Jones Museum Aid . . .

FLAGSTAFF—Mrs. David Jones has been appointed assistant curator of the Museum of Northern Arizona, it was announced by Dr. Harold S. Colton, director. Mr. and Mrs. Jones lived at Wupatki national monument where David was custodian until he was called to the armed service recently.

Indian Pow-Wow Scheduled . . .

FLAGSTAFF—Plans are complete to stage the 14th annual All-Indian Pow-Wow here on the afternoons of July 3 and 4. Featured will be Indian rodeos, dances and games, announced Judge H. K. Mangum, president of the Pow-Wow board.

Mexicans Given Ration Books . . .

NOGALES—Office of price administration has set up experimental rationing system here to accommodate residents of Nogales, Sonora, Mexico, across the international line. It was estimated that 25,000 persons living across the border were eligible for certificates entitling them to buy rationed meat, cheese, fats and other foods and shoes on the same basis as United States citizens. Monthly registration will be required, it was reported.

Davis Dam Work Starts Again . . .

KINGMAN — Revocation orders which had halted construction work on the Davis dam project were modified to permit delivery of a carload of anchor bolts, the war production board has announced.

Cotton Crop Tops Last Year . . .

PHOENIX—State cotton production reached 193,000 running bales last season, according to department of agriculture figures. This was an increase of 12,-000 bales over the previous season. Approximately 54,000 bales of the crop were the long-staple variety needed for war production manufacturing.

• • •

CALIFORNIA

War May Stop Air Coolers . . .

EL CENTRO—Outstanding issue in Imperial Valley is WPB's statement to the effect that air-coolers are not necessities, consequently repairs cannot be made on them without an approved application from war production board. One side of the issue says peak efficiency cannot be maintained under normal summertime temperatures in many parts of the desert. Others, more rugged, declare this is war and hardships must be endured.

Lion Cub Needs Meat Stamps . . .

BISHOP—If anyone has extra meat stamps, they'll be welcomed by Simba, seven-months-old African lion cub owned by Gene "Tiny" Davis. Tiny's daily rabbit-hunting excursions so far have kept the cub satisfied, but he intends to keep the rough playing cub and train him . . . perhaps as a North African commando.

Salton Sea Shipping Fresh Fish . . .

Imperial county, below sea level, is shipping fresh fish to coast cities of San Francisco, San Pedro and San Diego. Salton sea's rapidly developing fishing industry is providing mullet, shipped in iced trucks daily.

I.I.D. May Buy Private Power . . .

CALEXICO—Purchase by Imperial Irrigation district, cooperatively owned power and water company, of California Electric Power company within the area has become a definite possibility it was revealed by President Evan T. Hewes of the district. Proposal probably will be submitted to vote of the people within 60 days.

Jeep Chases Sheep . . .

MOJAVE—A wandering sheep decided to visit the marines at Mojave air base. After being chased all over the base by perspiring marines in a jeep it finally was captured and returned to its owner who, much wearied, returned to his home with the adventurous sheep in tow.

Chalfant Retires as Editor . . .

BISHOP—W. A. Chalfant, who has edited Inyo Register newspaper for the past 57 years, has relinquished his editorship to Todd Watkins, who has been news editor of the Inyo Independent and Owens Valley Progress-Citizen for the past two years. Chalfant will continue his "Tales of the Pioneers" column and make other editorial contributions.

Wife of Scotty's Partner Dies . . .

LONE PINE—Mrs. Albert M. Johnson, wife of the retired millionaire who financed the spectacular career of Death Valley Scotty, was killed in an auto accident near here late in April. Mr. Johnson escaped with minor injuries.

Big Carrot Crop May Be Lost . . .

EL CENTRO—Imperial Valley carrot growers will be left holding the bag if the federal food production administration doesn't act fast. At the request of the government, local farmers planted a record crop of the rabbit-food this year. Now, because of a surplus, 50 percent of the crop will have to be plowed under unless FPA officials rush dehydration plans. The type carrots being grown here are not generally used for dehydration purposes, but dehydrators may accept them if governmental approval is obtained.

• • •

NEVADA

Recreation Project Starts . . .

LAS VEGAS—Cooperative project to haul in sand for construction of a resort beach at Vegas Wash and Hemenway Wash on the shores of Lake Mead bore fruit late in April when work was begun. Various concerns and organizations, including Basic Magnesium, city of Las Vegas and Las Vegas army gunnery school are supplying equipment and personnel to complete the project, which will furnish the people of southern Nevada with a new recreational area.

Railroad Saved for War Aid . . .

GOLDFIELD—Extension of the old Tonopah & Goldfield south from here to connect with Union Pacific near Las Vegas seems secured with recent announcement that a subsidiary firm of RFC had agreed to make the required steel available. Last October it was announced that the present tracks of the T. & G. would be torn up and sold as scrap metal, but various interests later pointed out the strategic value of the railroad in furnishing an outlet for mining centers along the route it traversed.

U. S. Will Buy Nevada Wool . . .

GOLDFIELD—This state's annual wool crop of 5,000,000 pounds, now being sheared, will be bought by the government's commodity credit corporation to assure the effective distribution of wool for the fulfillment of war and civilian requirements.

The government's new million-dollar townsite of Gabbs Valley for employes of Basic Magnesium, Inc., officially came to life April 16 when the first 25 homes in the 60-home project were finished.

First State WAAC Claimed . . .

FALLON—Local residents are contesting Reno's claim to the first Nevada grandmother to enlist in the WAACS. Mrs. Gertie Hanson, grandmother of two curly-headed blonde girls, enlisted early in the year and left February 7 for Des Moines, Iowa, to be inducted. It is pointed out locally that she is the first grandmother in the state to enlist in any of the military services.

Fire Sweeps Historic Town . . .

GOLDFIELD—Fire, driven by a 60-mile gale, swept through this mining town early in April, leveling a large part of the city and destroying the historic Catholic church located here. Losses were estimated at between \$85,000 and \$100,000, the church accounting for \$65,000 of this amount.

State Wheat Crop Declines . . .

RENO—Department of agriculture announces that the state's winter wheat crop will be about 4,000 bushels under last year's record production. Estimates place the total expected harvest at 116,000 bushels.

NEW MEXICO

Navajo Seek Vote Right

GALLUP — A growing agitation among the 53,000 Navajo Indians for the right to vote in elections of Arizona and New Mexico, is reported by James N. Stewart, Navajo agency superintendent. He summed up their attitude thus: "The Navajo boys are subject to the draft and others are doing their full share in the war effort in every way, and it is only right that the Navajos should have the same privilege as other American citizens." Navajo also believe congress will show less indifference to their problems and requests if they are voting citizens, Stewart said.

Project Expected to Resume . . .

ALBUQUERQUE — Completion of Arch Hurley irrigation project at Tucumcari to supply water for 7,000 acres, was forecast for 1945 by U. S. Senator Chavez (D., N. M.). The project had been closed down by war production board to conserve critical materials. Chavez expected action by department of agriculture to allow the work to proceed.

Bear's Excursion Fatal . . .

RIVERSIDE—Early morning barking led Frank Williams to find his dog had treed a 200-pound half-grown black bear in the orchard a short distance from U. S. Highway 64-285. Williams shot the bear and notified State Game Warden Elliott Barker, who took the dressed animal to Santa Fe for cold storage. Meat may go to charity. Bear was found 15 or 20 miles from nearest bear habitat.

No Kitchen Police Here . . .

CARLSBAD—Army air base here is one station where the men don't have to worry about "kitchen police" duty. Departing from usual army customs, Major P. J. Cole, mess coordinator has only volunteer K.P. workers, who are student cook volunteers eager to learn cooking and baking trades. Major Cole's system has been declared the model army mess in the entire West Coast Training Center, a seven-state area.

Indian Silver Supply Due . . .

GALLUP—United Indian Traders are awaiting a shipment of 10,000 ounces of silver from New York, according to M. L. Woodard, secretary local chamber of commerce. It will be distributed among some 40 traders who in turn will distribute it among their Indian craftsmen for the manufacture of jewelry. Shipment is valued at about \$7,000.

Pueblo Indians Boost Crops . . .

New Mexico's 3,000 Pueblo Indian families, who boosted farm production 25 percent last year, plan to increase 1943 yields at least 10 percent. Chief crops are corn, pinto beans; new crops, edible soy beans and peanuts.

The Desert Trading Post

Classified advertising in this section costs five cents a word, \$1.00 minimum per issue—
Actually about 1½ cents per thousand readers.

MISCELLANEOUS

FOR SALE—12 beautiful perfect prehistoric Indian arrowheads \$1; 10 tiny perfect translucent chalcedony bird arrowheads, \$1; 10 perfect arrowheads from 10 different states, \$1; perfect stone tomahawk, \$1; 4 perfect spearheads, \$1; 5 stone net sinkers, \$1; 10 perfect stemmed fish scalars, \$1; 7 stone line sinkers, \$1; 4 perfect agate bird arrows, \$1; 5 perfect flint drills, \$1; 7 perfect flint awls, \$1; 10 beautiful round head stunning arrowheads, \$1; 4 fine perfect saw edged arrowheads, \$1; 4 fine perfect flying bird arrowheads, \$1; 4 fine perfect drill-pointed arrowheads, \$1; 4 fine perfect queer shaped arrowheads, \$1; 4 rare perfect double notched above a barbed stem base arrowheads, \$1; 5 perfect double notched above a stemmed base arrowheads, \$1; 12 small perfect knife blades of flint, \$1; rare shaped ceremonial flint, \$1; 3 flint chisels, \$1; 7 quartz crystals from graves, \$1; 10 arrowheads of ten different materials including petrified wood, \$1. All of the above 23 offers for \$20. Locations given on all. 100 good grade assorted arrowheads, \$3.00 prepaid. 100 all perfect translucent chalcedony arrowheads in pinkish, red, creamy white, etc., at \$10.00. 100 very fine mixed arrowheads all perfect showy colors and including many rare shapes and types such as drill pointed, double notched, saw edged, queer shapes, etc., location and name of types given, \$25.00 prepaid. List of thousands of other items free. Caddo Trading Post, Glenwood, Arkansas.

WANT .22 calibre short or long ammunition. Will pay \$120.00 per case (10,000 shells). Distance no barrier. Cash waiting. PEERLESS VENDING MACHINE COMPANY, Dept. DM, 220 West 42nd Street, New York, N. Y.

LAND OF SUNSHINE & OUT WEST edited by Charles F. Lummis. Complete volumes in wrappers \$2.00. Single issues at 35c post-free. N. A. Kovach, 712 So. Hoover, Los Angeles, California.

\$2.50 brings you prepaid, six rare and beautiful crystallized Arizona minerals. Vanadinite, Dioptase, Wulfenite, Willemite, Chrysocolla, Azurite. Specimens 1½x2 or larger. Wiener Mineral Co., Box 509, Tucson, Arizona.

WANTED—Couple in good health between 35 and 45 years of age. Experienced in desert nursery, dates and other ranch work. Small adobe residence, school, good water supply, close to village and Ry. station in Riverside County, Calif. Please give experience and references in first letter. Address P. O. Box 690, Mecca, Calif.

LIVESTOCK

KARAKULS producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 Place, Maywood, California.

Karakul Sheep from our Breeding Ranch are especially bred to thrive on the natural feed of the Desert. For information write James Yoakam, Leading Breeder, 1128 No. Hill Ave., Pasadena, California.

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Oppose Pueblo Threat . . .

SANTA FE—For the second time since 1941 a threat to Rio Grande Indian pueblos of Santo Domingo, Cochiti and San Ildefonso has arisen, declares New Mexico Association on Indian Affairs. Latest menace, the association reports, is H. R. 323 introduced by Congressman Clinton P. Anderson of New Mexico, which would authorize exploration of proposed dam sites by reclamation bureau without a report from the interior department. Before federal money is spent for such studies, it believes, all consequences should be considered. It points out that effectiveness of flood control, which is the avowed purpose of H. R. 323, is problematical; that the pueblos are a unique attraction to visitors from all over the world and source of material for architects, ethnologists, anthropologists, historians, archaeologists and sociologists; that right of Pueblo Indians to their lands is an inalienable one, and urges that all friends of the Indians write their congressmen at once to protest H. R. 323.

Contagious Disease Curbed . . .

ALBUQUERQUE—Two local medical research workers have reported development of a new method in treating impetigo, a contagious pustular type of eczema among children of the Western Hemisphere. Dr. Michel Pijoan, director of the U. S. Indian service nutrition laboratory, and Dr. Fred Worman, instructor in bacteriology at University of New Mexico, use a water-soluble plastic instead of ointment as a vehicle for the healing agent, sulfadiazine. The method eliminates use of surgical dressings. Treatment was tested upon 100 Spanish-American school children severely infected with impetigo and the researchers reported 100 percent success.

Chemical Gardens for Desert . . .

GALLUP—Teachers and others of the Navajo Indian service personnel were urged to test the advantages of chemical gardens where desert conditions do not permit normal gardening, in a bulletin issued by Dr. George A. Boyce, director of education on the Navajo reservation. Dr. Boyce declared that with a few common chemicals obtainable from the drug-gist for about one cent per pound, a gallon or two of water once a week, and discarded tin cans, it was possible to have tomatoes, broccoli or other fruits and vegetables grown in window sills the year round.

. . .

Estimated 12,000 persons took advantage of "open house" to visit the new army air base at Clovis April 30 and to view 1,000 men of the base air squadrons in review.

UTAH

Ute Land May Be Restored . . .

VERNAL—A bill passed by the house and due for senate approval would restore to the Ute Indian tribe of Uintah-Ouray reservation 61,389 acres of land in southern Utah. The bill also provided for a grazing district for exclusive use of Indian herds.

Beet Acreage Takes Drop . . .

SALT LAKE CITY—Drastic reduction in 1943 beet sugar crops was blamed by Douglas E. Scalley, general manager Utah-Idaho Sugar company, on delayed action relative to price support, to over-emphasis on other war crops such as potatoes and beans, and to farm labor shortage. He saw as a result either further reductions in sugar rations or increased shipping facilities for bringing more sugar from Cuba and Porto Rico. He predicted a reduction in sugar acreage of up to 60 percent for beet-producing states.

Bean Price Boosted . . .

LOGAN—Increases in support price for dry edible beans has been announced from the Utah state USDA war board. Instead of \$5.60 per hundred for U. S. No. 1 beans, new prices are \$7.50 for lima, baby lima, light red kidney, dark red kidney and western red kidney, and \$6.50 for pinto, pea, great northern, small white, flat white, pink, small red and cranberry. Increase is made to induce greater production. Utah farmers have been asked to double 1942 acreage.

Pioneer Program Slated . . .

SALT LAKE CITY—Utah will celebrate the 96th anniversary of the entry of Brigham Young and the Mormon pioneers into Salt Lake valley when Covered Wagon Days program is held July 20, 21, 22, 23 and 24, President Gus P. Backman announced in April.

Timpanogas Cave Opens . . .

AMERICAN FORK — Timpanogas cave, which normally attracts about 20,000 visitors each year, was opened late in April for 1943 season, with park officials expecting a drop in tourists. Cave is expected to attract larger percentage of Utahns this year.

Park Area Improved . . .

VERNAL—Improvements started in April at Canyon Park recreation area at junction of Ashley and Dry Fork canyons will create a park ideal for community outings, reunions and picnics. It is adjacent to fine trout fishing area, Indian pictographs and such natural formations as Cathedral Arch, Look-out Cave, Giants Stairway, Castle Cliff.

Sheep to Give Big Yield . . .

LOGAN—The 2,400,000 sheep which provide the state its greatest agricultural crop are expected this year to yield about \$17,000,000 worth of wool and mutton. To encourage greater production Utah agricultural experiment station and extension service has launched a research and educational project.

A WESTERN THRILL

"Courage," a remarkable oil painting 20x60 feet, the Covered Wagon Train crossing the desert in '68. Over a year in painting. On display (free) at Knott's Berry Place where the Boysenberry was introduced to the world and famous for fried chicken dinners with luscious Boysenberry pie.

You'll want (1) A 4-color picture of this huge painting suitable for framing. (2) A 36-page handsomely illustrated souvenir, pictures and original drawings, of Ghost Town Village and story of this roadside stand which grew to a \$600,000 annual business. (3) Two years subscription (12 numbers) to our illustrated bi-monthly magazine of the West. True tales of the days of gold, achievements of westerners today and courageous thoughts for days to come. Mention this paper and enclose one dollar for all three and get authentic western facts. Postpaid. GHOST TOWN NEWS, BUENA PARK, CALIF.

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DESERT MAGAZINE

636 State Street El Centro, California

Mines and Mining . .

Washington, D. C. . . .

President Roosevelt on May 3 signed Senator Pat McCarran's bill which suspends for the duration of the war the requirement that \$100 worth of labor must be performed or improvements made annually on mining claims on public property. It provides that the suspension period shall terminate on the first day of July following the end of the war.

San Francisco, California . . .

Smelting and refining industries which handle 22 non-ferrous metals essential to war effort went under 48-hour work week April 29 by order issued by William K. Hopkins, regional director of war manpower commission. Order applies to industries in California, Nevada, Arizona, Oregon and Washington, smelting and refining aluminum, antimony, arsenic, beryllium, chrome, cobalt, columbium, copper, lead, magnesium, manganese, mercury, molybdenum, silver, tantalum, tin, titanium, tungsten, uranium, vanadium, zinc and zirconium.

Wallace, Idaho

Gordon E. Anderson, local mining engineer, told Northwest mining association meeting in Spokane, Washington, that Columbia university research will produce revealing news in connection with atomic waves. He explained each metal has a wave length of its own and operators can "tune in" on ore bodies, the dial activity suggesting presence of ore deposit. He added his radio atomic machine could locate oil as well as ore.

Winnemucca, Nevada

Black Rock mining district, 85 miles northwest of here, which was condemned last year for a bombing range, is now open for prospecting, according to chief of army engineers, San Francisco office. Among mines located in the area are Big Mountain Copper, owned by Los Angeles interests, and other mines formerly producing manganese, gold, silver and lead.

Indio, California

Tungsten ore is being mined in several places in the Santa Rosa mountains south of here, according to a miner who has blasted a tunnel 150 feet into the mountainside. Chief operator is Jack Harris of Nightingale on Pines to Palms highway. Principal scene of activity is Golden Queen district about 17 miles south of here. Tungsten, valuable as steel hardener, is found here in lime combination known as scheelite.

Kingman, Arizona

Manganese Ore company, a subsidiary of M. A. Hanna company of Cleveland, Ohio, has signed a 70-year lease for the Arizona Manganese corporation's Price group claims in the Artillery Peak region, according to announcement by Fred W. Koehler of Beverly Hills. Price group embraces 41 full sized claims. This group of claims, with the Mesa group, were discovered by Koehler, Dwight E. Woodbridge and D. D. Corum on a prospecting trip 15 years ago and the three men have been in charge of the property and its development since then. They are managing director, president and vice-president, respectively.

Winnemucca, Nevada

A rich body of high-grade quicksilver ore has been uncovered at Baldwin quicksilver property in Bottle Creek district, northern Humboldt county, it is announced by Herb Baldwin, owner. Property is being worked by Molybdenum Products company of Tacoma, Washington. Discovery was made after progressing only 290 feet of a proposed 400-foot tunneling project. Vein is 35 feet wide, and quicksilver weighs 60 to 119 pounds to the ton, it was said.

Miami, Arizona

Castle Dome Copper company took over open pit mining operations near here in April. Project, sponsored by Defense Plant corporation, will require outlay of about \$11,000,000. General staff will be that of Miami Copper company, of which Castle Dome is an affiliate. B. R. Coil is mine superintendent.

Reno, Nevada

Two new mining operations will increase Nevada's mine plant investment and mineral output about 100 percent, predicts Jay A. Carpenter, director state bureau of mines. The projects are mining of magnesite at Toiyabe in Nye county and of manganese ore at Three Kids mine in Clark county, both under Defense Plant corporation auspices.

Banning, California

A fluorspar mill was scheduled for May production here, according to Sam Howard, of Essential Minerals, Ltd. Ore will be brought from Castle Dome section of Arizona, to be ground and separated. Fluorspar is calcium fluorid, and fluorine gas and hydrofluoric acid are made from it. Lead also is recovered from the ore. Essential Minerals has contracts with several iron smelters which will use fluorspar as a flux.

Washington, D. C. . . .

Tantalum, a metal rarer than gold, has been found in New Mexico, according to department of interior. Three tons have been purchased by Metals Reserve company at \$7,000 per ton. Metal is valuable to war effort for its high melting point and acid resisting qualities. Location of deposits was not disclosed.

Carson City, Nevada

Nevada's mines, mills and smelters, now employing more than 20,000 men, still are short of workers, Matt Murphy, state mine inspector reports. Present number employed represents approximately 11,500 increase over last year. Majority of men are working at Basic Magnesium, Inc., in Las Vegas area.

Phoenix, Arizona

Quartz crystals are urgently needed by the government for use in radio work, J. S. Coupal, director state department of mineral resources, declares. Arizona mining men are asked to report prospective sources of crystals. Thomas P. Thayer, associate geologist of U. S. geological survey, has been assigned to Arizona and New Mexico area to seek sources of supply. Best quality crystals bring up to \$30 a pound. They are needed for making radio oscillators used in tanks, planes and portable field sets.

Deming, New Mexico

Metals Reserve company, according to information received by A. S. Walter, dean of mining and metallurgy at New Mexico school of mines, has announced they will buy tin concentrates of 18 percent grade or better in one-ton lots here. This will give the small producers an outlet for the concentrates they have gathered in small lots. Metals reserve indicates that should it be necessary they will accept even 200-pound lots and possibly furnish a truck to gather the concentrates.

Independence, California

Borax production in the state for 1942 fell about 10,000 tons below 1941 total, according to figures released the last week in April by State Mineralogist Walter W. Bradley. Borate deposits in Owens Lake and Death Valley and nearby areas of San Bernardino and Kern counties accounted for the entire state output, a total of 232,833 net tons valued at \$4,929,553.

Miami, Arizona

Van Dyke copper company, which has been rehabilitating its property since last August, shipped the first two carloads of copper ore last week in April to the International smelter nearby. Ore averaged 5.15 percent copper. Mine is working three shifts, seven days per week, besides one surface crew engaged in rebuilding a new ore bin.

GEMS AND MINERALS

ARTHUR L. EATON, Editor

SAN DIEGO CLUB HAS QUARTZ FILM

San Diego mineralogical society was fortunate in procuring a film describing the preparation of quartz crystals and their piezo-electrical vibrating properties for use in radio sets. Since the film was designed for use in instructing persons engaged in this strategic production of war equipment, it was complete and detailed. Sound records, synchronized with the slides, proved to be a perfect teaching method. Diagrams and lines superimposed on the pictures of the crystals themselves, pointing out the different axes, and the method of determining same, were enlightening to members studying crystallography. Details were shown in the steps necessary to determine the axis by polarization.

The well machined, versatile grinding equipment, the accuracy of slicing to within a hair's width of the crystals, the manner of securing material in place, to be cut—all appealed to those who use lapidary equipment.

Many thanks were extended to the host, Dr. Paul E. Wedgewood, for this program with its extensive projection equipment. To those visitors who had time to linger at his well-equipped pottery studio, further practical uses of minerals were shown in the coloring of glazes and in the high temperature furnaces and kilns.

First steps toward the educational program for servicemen were taken by R. W. Rowland and N. W. Balcom. The Army and Navy YMCA welcomed their offer to bring small displays of minerals, to show and explain informally to those men interested. Later, many came to the regular meeting of the society in response to this effort.

LATIN-AMERICA CONTRIBUTES STRATEGIC WAR MATERIALS

All of Latin America is searching native resources diligently in order to find and develop metals and other vital materials essential to the war effort against the Axis powers. The shutting off of all European and Far Eastern supplies has made this necessary.

Brazil, largest of South American countries in area, long has been known as a potential store house of needed supplies, but only now, in war time, is it really taking its proper place at the front. The great diamond fields are being raided for quantities of commercial and industrial diamonds, now far more important to us than the finer gem stones. Quartz crystals for detectors in radios and sub-detectors hardly take a second place. Add to these beryllium, rubber, mica, and hundreds of other items, and one begins to realize something of the importance of this loyal ally to the war effort.

Mexico furnishes food, as well as silver, antimony, zinc, mercury, and other metals. Together with two other allies, she has sent us over 1,000,000,000 pounds of strategic copper.

South American countries are now also almost our chief source of tin, vanadium, nickel, several rare elements, castor oil and other drugs.

FINE SPECIMENS REPORTED FROM QUARTZSITE AREA

Beautiful specimens of pyrophyllite of exceptionally fine radiating, star-like form in delicate silver-blue tints are found in dumps of an old prospect near Quartzsite, Arizona, according to Trade Winds, hobby paper published by Paul Walker of Beaumont. Not only this mineral, but also fine small bladed kyanite is plentiful. More rare are pieces of quartz impregnated with rich blue dumortierite (desert lapis) suitable for gem cutting and some excellently formed double pyramidal crystals of shiny dark blue dumortierite.

COLECTORS GIVEN NOTES ON BORATES

The borates are a group of about 30 minerals, 17 of which occur in California. They contain boron and oxygen combined with one or more metals. Their color usually is white or colorless. They vary in hardness from one to five. Most common borates are colemanite, borax, ulexite. Best collecting localities are at Kramer and near Yermo in the Mojave desert, and at the Borate, Lang and Furnace Creek regions in Death Valley, according to Al McGuinness in East Bay mineral society bulletin.

FAMED BRAZILIAN TOPAZ MASQUERADED AS DIAMOND

Shortly after the discovery of diamonds in Brazil, in or about the year 1729, the then ruling house of Portugal, the Braganzas, announced the discovery and cutting of the famous "Braganza diamond," a stone weighing 1,680 carats, when cut. The stone remained a part of the Portuguese crown jewels until the fall of the royal house of Braganza in the person of Manuel II. Republican caretakers, attempting to evaluate the crown jewels of the country for sale, in order to raise money for the hard pressed republican government, discovered that the famous stone was a fine topaz and not a diamond at all.

Brazil, for 300 years a province of the royal house of Portugal, long has been famous for its large, pellucid topazes. Some of these are so colorless and clear that they remain almost invisible in their mountain stream beds, where they are known as "gotas d'agua," or drops of water in the Portuguese language. The "Braganza diamond" was probably one of the finest of these stones ever found, so fine indeed that it remained completely undetected by the general public for more than 100 years.

MODERN VERSION

Twinkle, twinkle little star,
I know exactly what you are.
A ball of incandescent gas,
Cooling to a solid mass.
Seen by spectroscopic ken,
You are helium and hydrogen.

—From Rockhound Record,
Mineralogical Society of Arizona
bulletin.

COLORFUL MINERALS

PYRITE

Pyrite, long the most despised of minerals by the collector, at last is coming into its own. The beautiful, brassy crystals were thrown about, ignored by the public, and only valued by the miner as a source of sulphuric acid. In recent years, collectors have begun to notice and save the beautiful brassy cubes or pyritohedrons and to study them zealously. Large crystals or clusters are an addition to any collection. Due to natural metamorphosis in the ground they often lose the sulphur which gives them their brassy color and become brown pseudomorphs of limonite after pyrite, a trioxide of iron instead of a sulphide. The brilliant peacock iridescence, which they sometimes put on in the course of this change, is not second to that of bornite or even peacock copper.

MINERALS

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The following minerals are supplied in specimens from 1x1 in. to 2x2 in. at 5 for \$1.00.

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Automolite	Norbergite
Azurite	Orpiment
Bauxite	Prehnite
Barite	Pseud-wavellite
Benitoite	Rhodesite
Beryl	Rhodonite
Bornite	Riebeckite
Calamine	Scapolite
Cassiterite	Serpentine
Celestite	Siderite
Cerussite	Sphalerite
Chalcocite	Spinel
Chrysoberyl	Staurolite
Chrysocolla	Stibnite
Cinnabar	Stilbite
Colemanite	Tetrahedrite
Cryolite	Topaz
Corundum	Tourmaline
Covellite	Turquoise
Crocoite	Ulexite
Crocidolite	Vanadinite
Cuprite	Variscite
Descloizite	Vesuvianite
Dioptase	Wavellite
Fluorite	Willemite
Gillespite	Wollastonite
Glauberite	Wulfenite

For a more complete listing of our minerals, refer to our

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Desert geology was the subject presented Mineralogical Society of Southern California April 12 at Pasadena by Norman Whitmore, mining engineer with the Mineral Engineering company of Los Angeles. Quartz crystals was the mineral topic for the evening, and members brought specimens for examination. They included optical quartz, quartz crystals, crystal groups, Herkimer diamonds, phantoms, inclusions and others. Bill Hudson was welcomed as a new member.

Paul Howard, geologist in Kern county assessor's office and formerly of state gas and oil division, spoke at April meeting of Kern County mineral society, Bakersfield, on origin and production of oil. Grab bag and raffle of specimens were other features of the evening.

Amethyst, usually occurring in sharp crystals, sometimes is found in the massive state. In the massive amethyst the irregular zones, light and dark, and sometimes slightly cloudy, are used with great effect by Chinese carvers.

GEM MART

Adv. rate, 5c a word—Minimum \$1.00

FOR SALE—Slightly used Mineralight Lamp Model 421, for regular house current, in perfect working order; fine for private collection of fluorescent minerals. Sold new at \$43.50; my price on this lamp \$35, plus beautiful fluorescent specimen, postage extra. E. Mitchell Gunnell, 201 Colorado Blvd., Denver, Colorado.

WANTED—To purchase showy crystals and specimens suitable for first class trade. Send details. West Coast Mineral Co., Box 331, La Habra, California.

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ANTIQUÉ JEWELRY — Locketts, brooches, chains, rings, etc. 12 assorted, \$3.00. B. Lowe, Box 311, St. Louis, Mo.

AGATES, Jaspers, Opalized and Agatized woods, Thunder eggs, polka dot and other specimens. Three pound assortment \$1.50 postpaid. Glass floats, price list on request. Jay Ransom, 1753 Mentone Ave., Pasadena, Calif.

ZIRCONS—OPALS—CAMEOS — 3 Genuine diamond cut Zircons (total 2½ carat) \$2.75. Twelve Genuine Opals \$1.50. Twelve Genuine Cameos \$2.50. B. Lowe, Box 311, St. Louis, Mo.

INDIAN RELICS, Beadwork, Coins, Minerals, Books, Old Buttons, Old Glass, Old West Photos, Weapons. Catalog 5c. Vernon Lemley, Osborne, Kansas.

100 JEWELRY STONES removed from rings, etc., assorted \$2.00. B. Lowe, Box 311, St. Louis, Mo.

ROCKHOUNDS . . .

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AMONG THE ROCK HUNTERS

At the April 15 meeting of the Los Angeles lapidary society, Leland Quick, DM writer, addressed the group on the subject of gem mines of San Diego county.

Long Beach mineralogical society has offered to assist in rehabilitation work at the naval hospital, Los Alamitos. A lapidary shop will be established there as soon as funds are available.

A comparatively large, tetragonal crystal of rutile, the dioxide of titanium, recently was found in Imperial Valley, California. The crystal is of a rich, golden brown color, hardness 6.5, and specific gravity 4.2, and about three-fourths of an inch long. Hairlike, rutile crystals, as inclusions in crystalline quartz, are not at all rare, but complete, loose crystals, at least in the far Southwest, are very unusual.

Sequoia club members are diversifying their collections by buying and selling their surplus specimens among themselves.

Searles Lake gem and mineral society has purchased one war bond and plans to buy another.

With the mercury bumping 100 degrees or better daily, members of Imperial Valley gem and mineral society are not at the moment lamenting because they may not go on field trips. The group met May 1 for a potluck supper and rock game at the home of Mr. and Mrs. L. P. Conner, Holtville.

Daisy Carlson, editor Sequoia bulletin, has been in the hospital, but the bulletin was ably compiled by her assistant, Elda Tracy.

Sequoia mineral society has purchased a \$25 war bond.

Dora Andersen's night class had a display of lapidary work and silver jewelry when Parlier high held open house April 16.

Henri Withington offers to disclose the location of a chalcedony field in Death Valley. Many of the nodules are green stained and some form geodes. All are small, ranging from the size of a beebee shot to that of a walnut.

Members of Searles Lake gem and mineral society keep the grab bag filled by donating their surplus specimens.

J. A. Finley, principal Randsburg schools, discussed movements of the earth's surface at April 21 meeting of Searles Lake gem and mineral society.

East Bay bulletin states that the most common error made by beginners in gem polishing is making the crowns of cabochons too high and the edges too thick. Slabs should be sawed only about three-sixteenths of an inch in thickness.

Members W. D. Taylor and C. Ferguson demonstrated identification tests of cinnabar and silver at April 8 meeting of San Fernando valley mineral society. For the benefit of swing shift members the group held a picnic May 2 at the Iverson ranch in Chatsworth. Marine fossils were found in situ.

Cinnabar, crystallized mercury sulfide, was originally used as a pigment, called vermilion.

Jack E. Welch talked on Indians and Indian relics of southwestern Colorado and southeastern Utah at the May gathering of San Fernando valley mineral society.

A. J. Clark, Imperial, California, moved to the coast the first of June. For years the Imperial furniture exchange, operated by Clark, has been a mecca for hobbyists, rockhounds included. His collection of purple desert glass is one of the largest in the West. First treasure packed for removal to the new home was a large Brazilian agate geode with amethyst crystals. Another outstanding specimen owned by Clark is an opalized tree stump from Mans Creek, Idaho.

Hugh Matier of Union Oil of California, spoke on geology of the Alcan highway at April 9 meeting of Long Beach mineralogical society. The lapidary section of this group is growing rapidly.

Pacific mineral society enjoyed three reels of pictures on copper mining in Arizona at May 14 meeting. U. S. bureau of mines loaned the films. J. G. Houge showed a surprise reel. The Pacific group visited the residence of W. Scott Lewis and the Hollywoodlands district on their May field trip.

Los Angeles lapidary society held their third annual exhibition of gem stones Saturday and Sunday, May 15-16 in Exposition park, Los Angeles. Over 10,000 gem stones cut by amateurs were on display.

Searles Lake gem and mineral society has made an appeal to members for spare swim suits to supply soldiers in that area.

Sequoia mineral society observed an Indian evening for the May meeting. Members displayed their baskets, pottery and Indian artifacts and told interesting stories about their collections.

Cogitations . . .

Of a Rockhound By LOUISE EATON

There's some folks you scarcely dares interdoce to rocks, becuz you can see with half an eye that when the rockitis bug attacks 'em it'll be such a virulent case that they'll never be theirselves again. Such folks, with their impetuous enthusiasms, makes dandy rockhounds when they does fall. But their jobs may suffer. Just as well that people like that can't go on field trips now when their work is needed in the war effort.

It would be kinda interestin' if someone would invent some sort of a gadget to polish humps 'n hollows of rocks so's polished stones didn't all hafta be even, but could be left natural. Fr instance, if the interstices of a chalcedony rose could be polished, how lovely 'twould be.

There's another silver linin' visible in the clouds of no-field-trippin'. Even if honest 'n discriminatin' rockhounds can't get to gem locations, neither can unscrewopulous folks who hauls off specimens by the truckload. They hasn't gas 'n tires, too.

East Bay mineral society, Oakland, California, held a mineral quiz program, fashioned after Information Please, April 1. Francis J. Sperisen talked on "gems have gone to war" at the April 15 meeting.

The new pennies are now coming into the hands of the public in ever increasing numbers. The copper, tin, etc., formerly put into coins is there no longer. They have lost even their copper color, in favor of the color and sheen of humble zinc. This saves much precious copper and tin for the war effort, but meanwhile, the casual shopper will have to watch them carefully, because of a size and color resembling those of dimes.

West Coast mineral society, at its April meeting, enjoyed colored slides of desert life and Carlsbad Caverns shown by Mr. Plattner of Downey. Excellent pictures of Dox Leonard's colorful collection of polished specimens were also viewed by the members. Balance of the evening was spent discussing feldspar.

ANSWERS TO TRUE OR FALSE

Questions are on page 28.

- 1—False. Since 1937 certificates of authenticity state weight and size of fabric and certify it is made entirely of locally hand-spun wool, woven by a member of the Navajo tribe on a traditional Navajo loom.
- 2—False. Canyon del Muerto is in northeastern Arizona; Camino del Diablo crosses the southwestern part of the state.
- 3—True. The tunnel is a 13-mile bore built as a unit in the Colorado river aqueduct bringing water to the Metropolitan Water District of Southern California.
- 4—False. Cereus grows from a tuber.
- 5—True. The ancient shores extended from below the Mexican border to the northern end of Coachella valley.
- 6—False. Indian name means Rock-with-wings. From the air it resembles the shadow of an enormous bird in flight. Mystery is, how did the Navajo get a bird's-eye-view of it.
- 7—True.
- 8—True.
- 9—False. Pahute Indians were living there at the time.
- 10—False. Smoki clan is composed of white citizens of Prescott, Arizona, who perpetuate the rituals of Southwest Indians by study and re-enacting.
- 11—False. It is in northeastern Utah, near Jensen.
- 12—True. The monument consists of 143,000 acres of snowy gypsum.
- 13—False. Dr. Salsbury is director of the Sage Memorial hospital and mission school at Ganado, Arizona.
- 14—False. A company of Coronado's soldiers visited them in 1540.
- 15—False. They are nocturnal rodents.
- 16—False. It occurs in nearly every color in the spectrum to colorless.
- 17—True.
- 18—False. Rhyolite is a ghost mining camp in Nevada.
- 19—True.
- 20—False. Po-pé was a native of San Juan Pueblo, a Tewa Indian village of New Mexico.

EMERALDS

Beautiful emeralds have long been an important product of Colombia, in the far northwestern corner of South America. These crystals, hexagonal and often doubly terminated, frequently are found imbedded in the native limestone of the country. Being members of the world famous beryl family, they have a hardness of eight, which is sufficient to withstand almost any ordinary wear and tear. The long slender shape of the crystal gave rise to the famous "emerald cut," almost always used for them in order to preserve the brilliant, emerald green color of the smaller stones. However, only a small percentage of the emerald beryls found in Colombia or any other country are of fine gem quality.

Congratulations to Mr. and Mrs. Wendell Stewart of Monrovia on arrival of a young rockhound, Ronald Wendell, weighing 7 lbs. 7 ozs.

Dr. Wm. I Gardner, geologist of U. S. bureau of reclamation, addressed Sacramento mineral society on geology of Shasta dam. Talk was illustrated with kodachrome slides.

According to a release of the Nevada department of highways for the San Francisco exposition in 1940, the total production of the state of Nevada, for the 34 years preceding the exposition, almost reached the one billion dollar mark in the five chief metals alone. The copper production for the 34 years was \$360,599,772; gold, \$254,517,397; silver, \$185,647,157; zinc, \$30,196,640; lead \$29,948,133.

Service memberships, with dues to be suspended for the duration, were voted unanimously by East Bay mineral society at the March meeting. The secretary will be glad to send such a membership card to any member in the services.

Kyanite may be distinguished from other minerals which look much the same in form and color by its dual hardness. Lengthwise the blades scratch easily; the opposite direction (across) the crystal is apparently much harder.

Rocks From Alaska to Salton Sea . . .

Kernville, California

Dear Desert Friend:

I thoroughly enjoy the Desert Magazine. The February number was especially interesting. I must confess that both my husband and I are "rabid petrollers." Ed Ainsworth's story recalled some vivid memories of some of our trips. Especially the part about trying to pack in rocks weighing a ton (more or less). That's us!

You should see our yard. Rocks everywhere! There are two fountains made of the many different colored rocks we have brought in from the desert. The lawn is surrounded by them, and so are the flower beds.

In the back yard we have a real rock garden and barbeque pit. The floor—15x30 feet—around the pit is made of flat stones brought from the Mojave desert.

The fireplace in our living room has a new face, the former cobblestones having been covered with bright colored rocks brought home from as far north as Alaska and as far south as the Salton sea.

PEARL BECHTEL

Weather

FROM PHOENIX BUREAU

Temperatures—	Degrees
Mean for April	71.8
Normal for April	67.0
Highest	102.0
Low on April 10	44.0
Rainfall—	Inches
Total for April	0.14
Normal for April	0.40
Weather—	
Days clear	18
Days partly cloudy	9
Days cloudy	3
Percentage sunshine April	86
Percentage sunshine normal	87

Rock-a-Chuckies

SELECTED, PERFECT, FLAWLESS, DEPENDABLE GEM MATERIAL. Will Cut Into Ovals, Flats, Cabochons, Etc. WHY GAMBLE?

How often have you purchased a pound or so of what looked to be material suitable for gemstones—only to find it so fractured and pitted you had to throw it away?

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Lapis Lazuli	Jet
Sardonyx	Red Hematite
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Green Jasper	Dumortierite
Flowering Obsidian	Rhodonite
Onyx	California Bloodstone
Yellow Jasper	White Jade (Siam)
Red Jasper	Brazilian Agate
Black Obsidian	Belgian Chert
Multi-colored Petrified Wood	Eden Valley Wood
Rouge Blanca	Moss Opal
Myrrickite	Green-red Moss Agate
Chrysocolla	Nevada Wonder Stone
Black Wood	Brecciated Jasper
Jasp-agate	Orbicular Jasper
Palm Wood	Utah Jade
Moss Agate	Vesuvianite
Cinnabar Opalite	Double-flow Obsidian

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and polishing equipment. Leland Quick, who conducts this department, is former president of the Los Angeles Lapidary society. He will be glad to answer questions in connections with your lapidary work. Queries should be addressed to Desert Magazine, El Centro, California.

By LELANDE QUICK

"No California for me," say some of my eastern friends, "I want a change of seasons." They misunderstand of course for we do have a change of seasons except that we have climate instead of weather, but we have enough weather to keep things interesting. I feel the spring fever coursing through my veins right now just as much as I ever did in the East. In fact it is worse because I can't get to the desert and I dream daily of the bean fields at Nipomo. Yes, I'd like to go on a field trip again; almost anywhere, but the bean fields hold first place in my thoughts and they are just far enough away to be too long a trip at 35 miles an hour even if it didn't require gasoline.

Of all the places I have ever hunted for gem materials the bean fields in San Luis Obispo county have been the most rewarding. The finest stones I have gathered there have been cast aside by others. Folks go there and make the tragic and ignorant mistake of breaking open every rock and casting aside all those that have no selenite. Just because a rock contains no "moss" does not dismiss it from gem possibilities. I possess many beautiful rocks that I have gathered at Nipomo that have no selenite—eye agates, peach, lemon and carnelian agates and just agate with beautiful markings, some with iris and some with marcasite crystals. There is no spot that I ever have visited where there is such a variety of worthwhile material and each trip to the place is a great adventure and a re-education for me.

So many people have visited the fields in the past three years that it is increasingly difficult to find large and good specimens now unless you are lucky enough to be there right after the plowing. However, a friend of mine came home the other day with material that would make any rockhound bug-eyed. He found it in a new spot in the same county but far removed from the usual pickings. Now I itch more than ever to hit the road. Imagine a virgin bean field filled with agate where no one ever has used a hammer! Well, it's something to live for.

Does anyone have any explanation to offer regarding the origin of the wonderful variety of agate found at Nipomo? To my knowledge no one ever has found any trace of good material in the hills back of the fields. I have explored some of the canyons myself and never found a thing. It is reported that a dyke of volcanic ash exists several miles long from which the agates have weathered.

A friend of mine recently provoked a lot of thought by asking "what IS a gem?" Few possess confused thought when the term "jewel" is used but many are confused by the word "gem." Gems are substances that are improved by cutting and polishing but have not been mounted as jewelry. When they are mounted the gems become jewels but not until they are mounted. Gems may be made from any gem materials and they may be animal, vegetable or mineral. Tortoise shell and pearls, animal substances, are gems. Certain woods and nuts, even when not petrified, are gems when processed. Of course the many petrified substances changed to agate and opal are first rate gem materials. Amber and Job's tears are plant materials used for gem purposes. The word also implies something very fine such as "a gem of a painting." Gems are not al-

ways thrilling however. Who could vibrate to a string of Job's tears for instance!

Bertha Schell of Camp Wood, Arizona, writes me a very interesting letter from her Arrow Head Mine. She also sent me specimens of a new green material that saws and polishes well, she claims. I don't know what it is but I've never seen any of it in collections. It could be plasma or serpentine; looks like bloodstone without the red spots. Mrs. Schell will send it F.O.B. Prescott, Arizona, at a very reasonable price. She lives 20 miles from her mailbox and only gets to it once a month so give her plenty of time to reply to any inquiry you make.

Thomas M. Riley of Eagle Point, Oregon, believes that rocks sawed with a mud saw polish easier than rocks sawed in oil with a diamond saw. He says that in spite of everything he has used he still gets oil when he goes to the felt buff. I know of no one who has this trouble. There are many fancy ideas about washing oil from rocks but soap and water seems as effective as anything. Readers, what do you offer?

By the time this reaches you the lights will have dimmed on the third annual exhibition of the Los Angeles lapidary society. An account of the show and a list of the prize winners will appear in Arthur Eaton's department next month.

DID YOU KNOW . . .

Paul R. Morgan of Los Angeles sends me these interesting items culled from "Minerals, Metals and Gems," by A. Hyatt Verrill.

- The British museum has a life-sized human skull, perfect in every detail carved from a single crystal of clear transparent quartz by a master artisan of the ancient Aztecs.
- A strange sapphire ring, said to have belonged to Charlemagne, is preserved in the cathedral at Aachen. It is made of two cabochon stones, one oval and the other square, set back to back. Between these, and visible when the ring is held up to the light, is a tiny cross said to have been made from the Holy Cross itself.
- Most of the "jewels" used in the cheaper watches are garnets, over 250,000 of the tiny stones being used every month for this purpose.

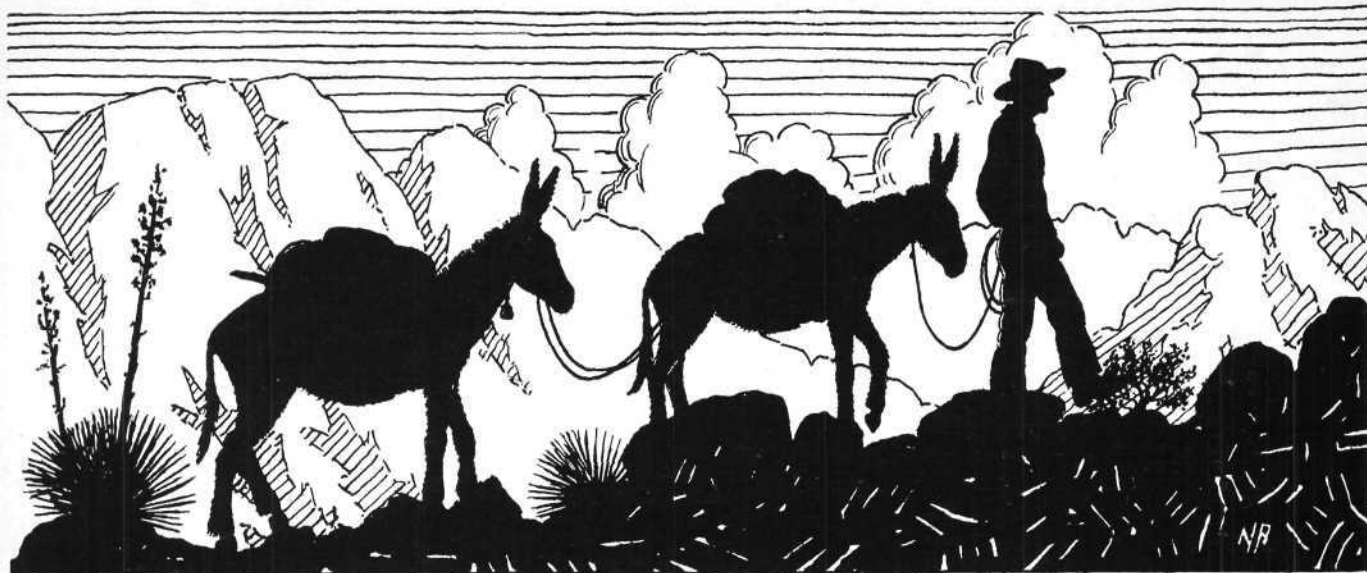
LAPIDARY HELPS AND HINTS . . .

An old phonograph record makes a good buffing lap for the final polishing of faceted gems. Use tin oxide, of course.

Wash your finished gems in acetone to remove the tin oxide that gets in pits and crevices of flats and specimen pieces.

Do not use purple fluorite crystals to decorate fish bowls. A weak solution of hydrofluoric acid forms and the fish die.

Success in cutting and polishing smithsonite and rhodochrosite is best achieved by slow grinding on a 220 wheel, slow sanding on a well worn 220 sander and then a tin oxide finish. "Slow" means 750 R.P.M. Fast cutting and fast sanding blisters these materials.



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Here are books that will take you to wild and remote Indian Country. . . . Lead you back through fantastic chapters of history. . . . Enchant you with legends and lost treasures. Here are books that will give you the warm human side of living in a desert land . . .

These are the books which Desert Magazine staff has added to its bookshelf this month ESPECIALLY FOR YOU. Make your selection from this list, then write for a complete new catalog for other titles on the Southwest. Desert cards will be enclosed with gift books.

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- 101 **MESA LAND.** Anna W. Ickes. Enchantment of Southwest, brief history of Arizona and New Mexico, leading Indian tribes. Illus., index, 236 pp. . . . \$3.00
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By RANDALL HENDERSON

TROPICAL AFRICA—For many miles we rolled along through a canyon of dense tropical vegetation—a canyon whose walls are almost as impenetrable as the serrated cliffs of Red Rock canyon in the Mojave desert of Southern California.

The road was well-graded red clay. Road crews in this African region have a double task. Their work not only involves the usual grading operations, but they are also engaged in a constant battle against the encroaching jungle on both sides. Within a few months' time this red earthen ribbon along which we are traveling would disappear beneath the deep green foliage of an invading glacier of trees and shrubs and creepers, were it not for the incessant whacking and chopping of brushmen.

Our destination was one of the many diamond mines found in widely separated areas of Africa. Every few miles our green canyon walls gave way to a little settlement of mud huts with thatched roofs. Goats and chickens scurried for cover as our army station wagon rolled along the main street. Natives who spend most of their daylight hours out of doors, grinned and waved as we passed. They are a friendly lot of primitives.

* * *

At one of the villages we stopped to inquire about the road ahead. Almost immediately we were surrounded by a clamoring mob of youngsters. They have learned that American soldiers are generous with candy and cigarettes and pennies. "Dash me, mastah!" is their way of begging. "Dash" came originally from Portuguese and the word means either a tip or a gift. It is one word every native knows.

In such a mob it obviously is a mistake to start dashing. But the youngsters really do not expect it. They laugh if they get something—and laugh if they do not. It is all a good-natured game in which they have everything to gain and nothing to lose. Under these circumstances, instead of saying "no" I borrowed the custom of holding out my hand and saying, "You dash me." Generally this works, but on one occasion a little ragamuffin reached down in the tattered remnants of a pair of shorts and fished out a penny and handed it to me. Needless to say, he got it back with interest.

In a little courtyard adjoining one of the native huts, two women were making fufu, the staple food in this part of Africa. The word fufu covers items of food prepared by mashing them in a big wooden mortar with a long mahogany pestle known as a fufu stick. It may be yams, cassava, cocoayam or plantain (which looks like a big banana but has a better taste when raw). Any one of these, or sometimes two of them together, cooked and pounded in the wooden bowl is fufu. After being worked awhile it reaches the consistency of bread dough. With the pestle, six-foot hand with a knob at the end, one woman stands and pounds the dough while a second woman sits on the opposite side of the bowl and deftly turns it with her hands.

I always stand by in worried suspense when I come upon native women making their fufu. Every moment I expect to see the knob on the end of the stick mangle the hands of the woman

who is kneading the dough. The natives laugh and gossip as they work, looking at everything on the horizon except the bowl of fufu, but always, just a split second before that heavy knob of wood comes chugging down into the bowl, the hands are out of the way. They've been practicing that rhythm for generations.

* * *

Along the road that winds through the jungle we constantly pass little groups of natives in flowing bright-hued robes, generally with burdens of firewood, yams, bananas or building materials on their heads. I did not realize until I came to Africa what a tremendous contribution to civilization was made by the aborigine who invented the wheel. With no wheels to grind our food, make our clothing and transport our products we all would be primitives.

The natives here have come only a little way into the wheel age. They prepare much of their food on metates or in mortars, carry their burdens on their heads, and cultivate their crops with crude tools. However, most of them now wear clothing woven in a distant factory driven by wheels. Carrying everything on the head is a slow hard method, but it has its compensations. It builds strong erect bodies.

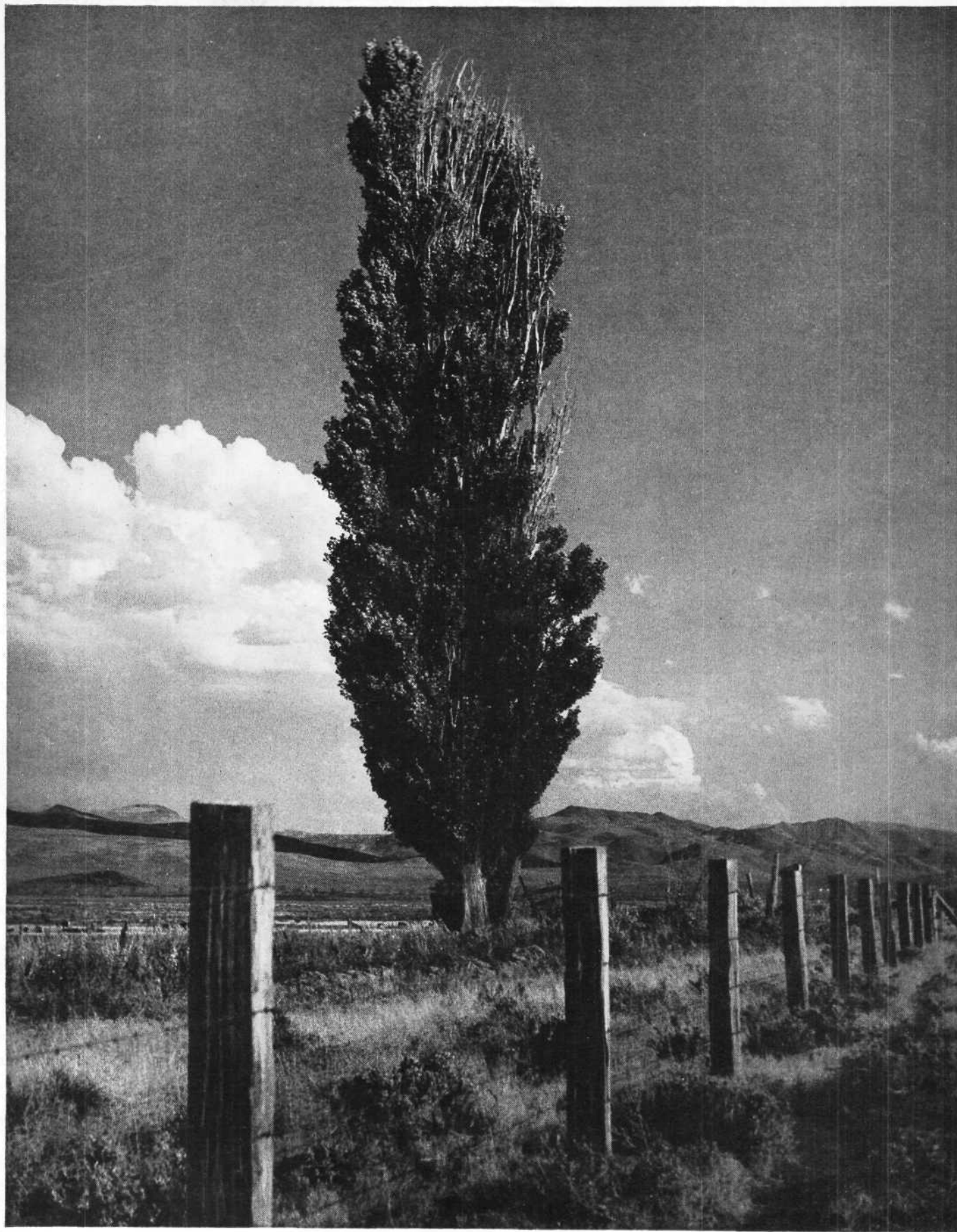
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Since diamonds are a strategic mineral, my reference to the mines we visited is necessarily restricted. The gems found here are in strata of clay which overlay the floors of little valleys in the jungle. This is no trip for rockhounds who like to go out scratching around in sand and rocks to find their own specimens. These are small commercial diamonds, and with an ordinary prospector's pick and shovel you might dig around for weeks without finding one.

Gem collecting here is a job for well-capitalized concerns that bring in heavy machinery and mill the clay transported between the pits and the plant on a miniature railroad. Several of the tiny dump cars were on the tracks with their loads of slate-colored soil. Members of our party sifted some of it through their fingers, but soon realized they were looking for the needle in the haystack. It doesn't require many carats in a cubic yard of clay to make a paying mine. The process of getting them out is approximately the same as the method used by the dredging outfits in Nevada and elsewhere for recovering gold from gravel.

Being very much of a novice in the matter of diamonds, I asked the plant superintendent how these gems occur in the mother rock. "The mother lode for diamonds never has been found," was his answer. No doubt the geologists have been able to piece together a plausible theory as to the original occurrence of these hardest of all gems, but I'll not go into that.

I did not bring home any specimens, but *Desert Magazine* readers may recall that more than once I have expressed the thought that the value of a rockhound's field trip is not in the loot he brings home, but in the physical and mental exhilaration that comes from the adventure. And that is true in Africa no less than on the great American desert.



Nevada Landscape

By DARWIN ACHESON
San Francisco, California

Second prize winner in Desert's monthly amateur contest is a view taken near Pyramid Lake, Nevada, with a Korelle Reflex camera, Panatomic X film, medium (K'2) yellow filter. 1/50 at F:8. First prize winner on page 2.

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